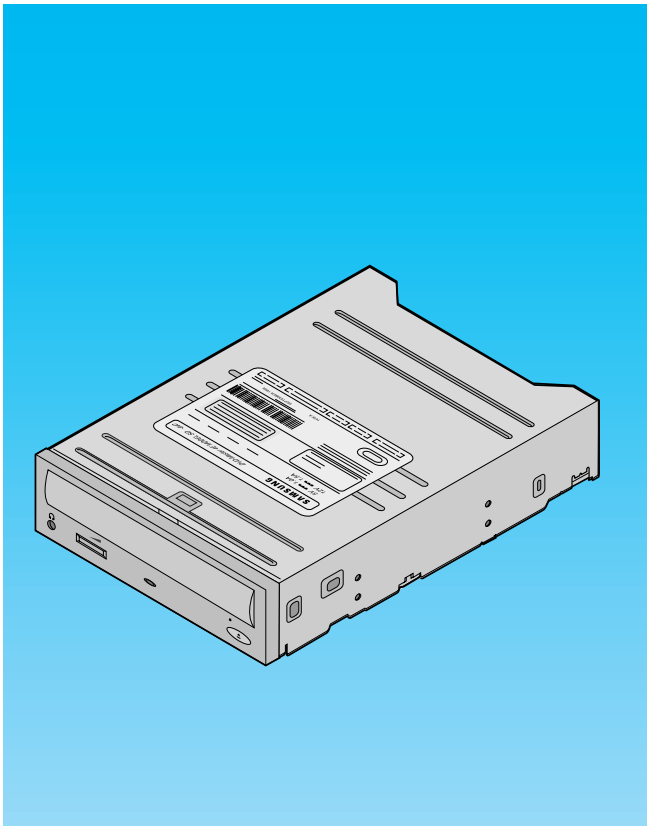
SAMSUNG

DVD-ROM DRIVE
SD-608B

DVD-ROM Service Manual

DVD-ROM DRIVE



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Electronics

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AUGUST, 1999
Printed in Korea
Code No.: BG68-00148A

1. Precautions

1-1 General items

1) Be careful not to have your eyes or a part of body touch with laser diode at repair because this product uses laser diode.
2) Do not disassemble Pick-up at repair.
   If the laser diode is bad, replace the entire Pick-up.
3) Keep away from TV or other electrical units at repair to prevent a influence from surrounding units.
4) If you want to replace the parts during repair, be sure to plug off the power cable before replacement.
5) If you insert a disc into CD player, be sure to load it correctly.
6) Because this unit cant' be used by itself, surely mount it on PC(pentium or more) and check the operations in use of private device drive floppy diskettd.
   Refer to Instruction manual.
7) This unit has many parts with features related to safety and especially, for essential parts, the importance is indicated on circuit diagram and partlist. Be certain to use the parts with same specifications at replacing these parts.

1-2 Electricity sensing device

Some semiconductor units may be damaged easily by electricity.
These elements are called as electricity sensing device(ESD) in general. For example, integrated circuit, field effect transister, semiconductor chip.
The following methods have to be used to reduce the accident of element damage generated by electricity.

1) Emit all electric charges in your body through contact with earthing materail at once before handling a semiconductor factor or device including it.
   In other way, make use of commercial wristlet against electricity
   It shall be detached before power impression to the unit on testing because of shock.
2) After detaching an electrical device including ESD, it shall be placed on conductive surface such as aluminium to prevent the charge acummulation and unit exposure.
3) Utilize only the soldering iron with earthed end for ESD soldering or release
4) Make use of only anti-static soldering release unit.
   A soldering release unit not to be classified as antistatic may generate the enough charge to damage ESD unit.
5) Never use a Freon-propelling chemical product.
   It may generate the enough charge to damage ESD.
6) Untill installing ESD unit for replacement, never it from protection package.
   (Most of ESD unit for replacement have lead composed of package shorted electrically by conductive foam, aluminium or similar conductive material.)
7) Contact with shassis including ESD or protection material in circuit parts just before detaching the protection material from lead of ESD unit for replacement

Note : Be sure to avoid the power impression to the shassis or circuit and observe the safety instruction.

8) Minimize the body action at handling an unpacked ESD unit for replacement.
   (Otherwise, an unconscious action, so to speak, friction between clothes or foot lifting from carpet floor may generate the enough charge to damage ESD unit.)

1-3 Safety instructions

1) Read all safety and operational manuals before operating this product
2) Keep the safety and operational manuals for future reference.
3) Observe all precations and operational instructions in or on the surface of this product.
4) Follow all operation and maintenance cautions.
5) Be sure to plug off the power cable before cleaning. Use a dry cloth to clean a dusty cover of cabinet instead of liquid or aersol cleaner.
6) Never use a attachment not to be recommended by this company. It may result in danger and damage.
7) Never use this product around water such as bathtub, washbasin, laundry machine, swimming pool or lakeside.
8) Never place this product on bed, sofa or around radiator and heater.
9) Power : Utilize the only power displayed on lebel
If the power type can't be checked, call to dealer or Korea Electricity, Co, Ltd. Refer tooperate this product by battery or other power.
10) Lightning : Plug off the power cable for product protection during thunder and lightning flashes or this product is unused for a long time.
11) Overload : Be careful that the wall outlet and expanded cord is overloaded due to danger of fire and electrical shock.
12) Never insert a substance or liquid into this product. It may cause fire or shorck by contact with voltage point or short.
13) Part replacement : The service engineer has to use the parts of same specification at replacement. Otherwire, fire, shock or other dangers may be occurred.
14) Safety check : Be sure to perform the safety check at service or repair completion

Importance : This product includes special impotrant parts on safety.
These parts are indicated by on schematic diagram.
At replacement of these parts, use the parts of same specification due to shock, fire or other dangers.
Never transform the original design without permission of this company.

1-4. Earthing cautions at handling Pick-up

Because the laser diode in optical Pick-up is subject to get out of order due to the potential difference occurring by electricity load charged in clothes or bodies, observe the following earthing items at handling.

1) Body earthing at repair : Be sure to wear a wrist strip with one side earthed.(Impedance : Below $10^4\Omega$).
It removes the electricity formed in body.

2) Work table earthing : Put the earthed conductive plate(Impedance : Below $10^4\Omega$) such as copper plate on work table.

3) Cautions for clothes : Do not have any clothes touch with Pick-up because the electricity formed in clothes is destroyed easily.
4) FPCB operation be careful to handle FPCB because it may be damaged easily.

3. General information

3-1-1 Circuit description

3-1-1. Front

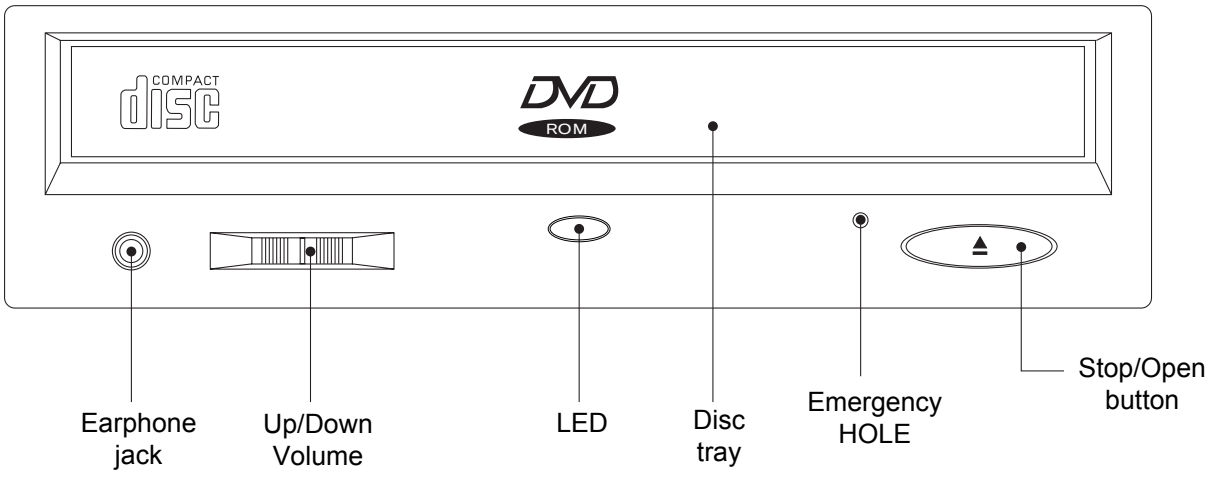


Figure 3-1

3-1-2. Rear

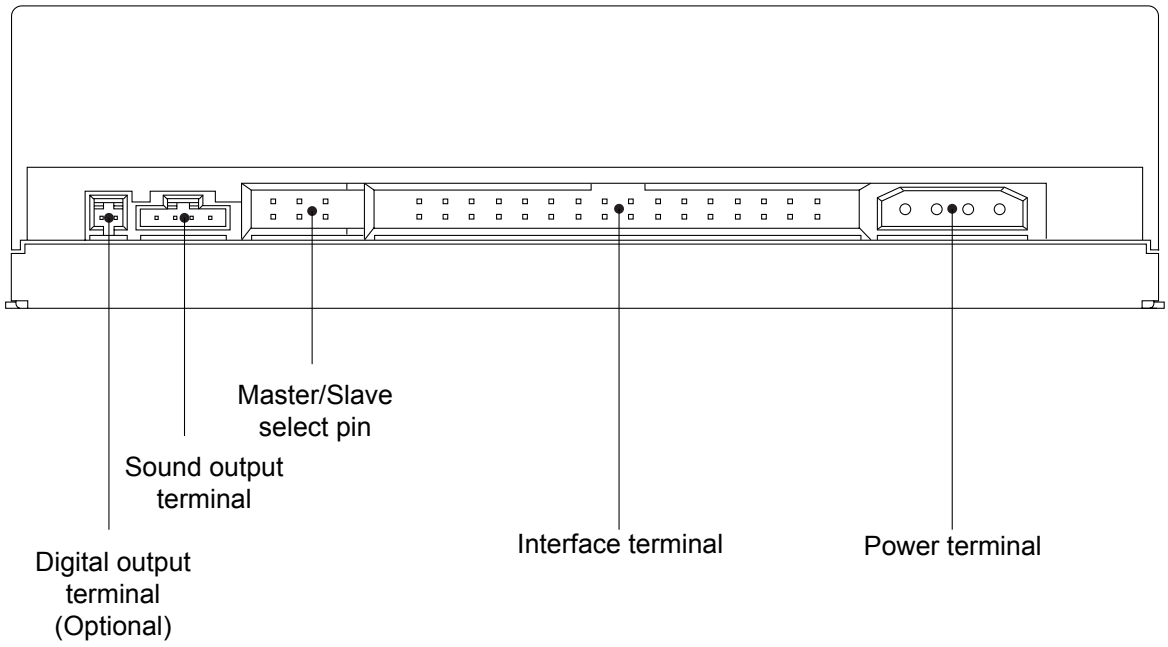


Figure 3-2

3-2. Circuit description

3-2-1. RF

3-2-1(A) IC101 (TA1313F)

IC101(TA1313F) is used in combination with TC9489F as bipolar IC developed for CD/DVD RF signal system. In main, it receives the pick-up output converted into I/V and preforms DVD waveform equalization(EQ), CD equalization(EQ), astigmatic focus error signal generation, 1-beam tracking error signal generation(by DPD method), 3-beam tracking error signal generation FE, TE, RF GAIN adjutment and laser power control, etc.

1) Reference potentiometer
IC101 selects a single power method and from pick-up input singnal terminl works on the basis VrA of 2.1.V.

2) CD/DVD-RF signal system: IC101(TA1313F)
Figure 3-3 shows the flow of RF signal generated in pick-up.

◐EQ control parameter

1. EQF(58pin): Change the peak frequency with EQ frequency features.
   (Convert PWM signal, (TC9489F(168-pin) into DC via low-pass fiter and supply it.)
2. EQB(57pin): Change the boost of EQ frequency features.
3. VRCK(17pin):Input the base clock and link the peak frequency with it.

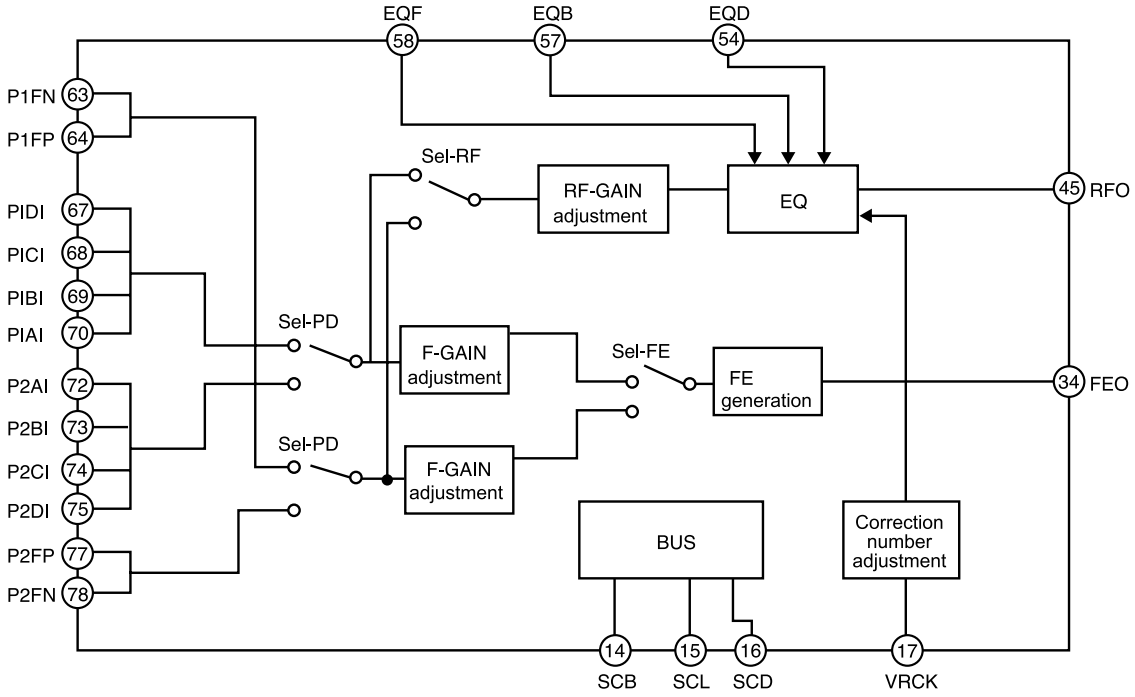


Figure 3-3

3-2-2 SERVO circuit description

3-2-2(A) Outline

SERVO system of DVD is divided into FOCUS SERVO, TRACKING SERVO, STEP MOTOR LINKED SERVO and SPINDLE MOTOR CONTROL SERVO.

1) FOCUS SERVO

Focus the optical spot outputted from object lens on disc surface correctly by maintaining a regular distance between object lens of Pick-up and disc for surface vibration of disc.

2) TRACKING SERVO

Make the object lens follow the disc track in use of tracking error signal created from Pick-up.

3) STEP MOTOR LINKED SERVO

When the tracking actuator inclines to outer as the object lens follow the track at play, move STEP motor a little. and prevent it from leaning.

4) SPINDLE MOTOR CONTROL SERVO

Control the disc motor to maintain a constant angular velocity in use of FG signal outted in Drive IC.

3-2-2(B) SERVO SYSTEM BLOCK DIAGRM

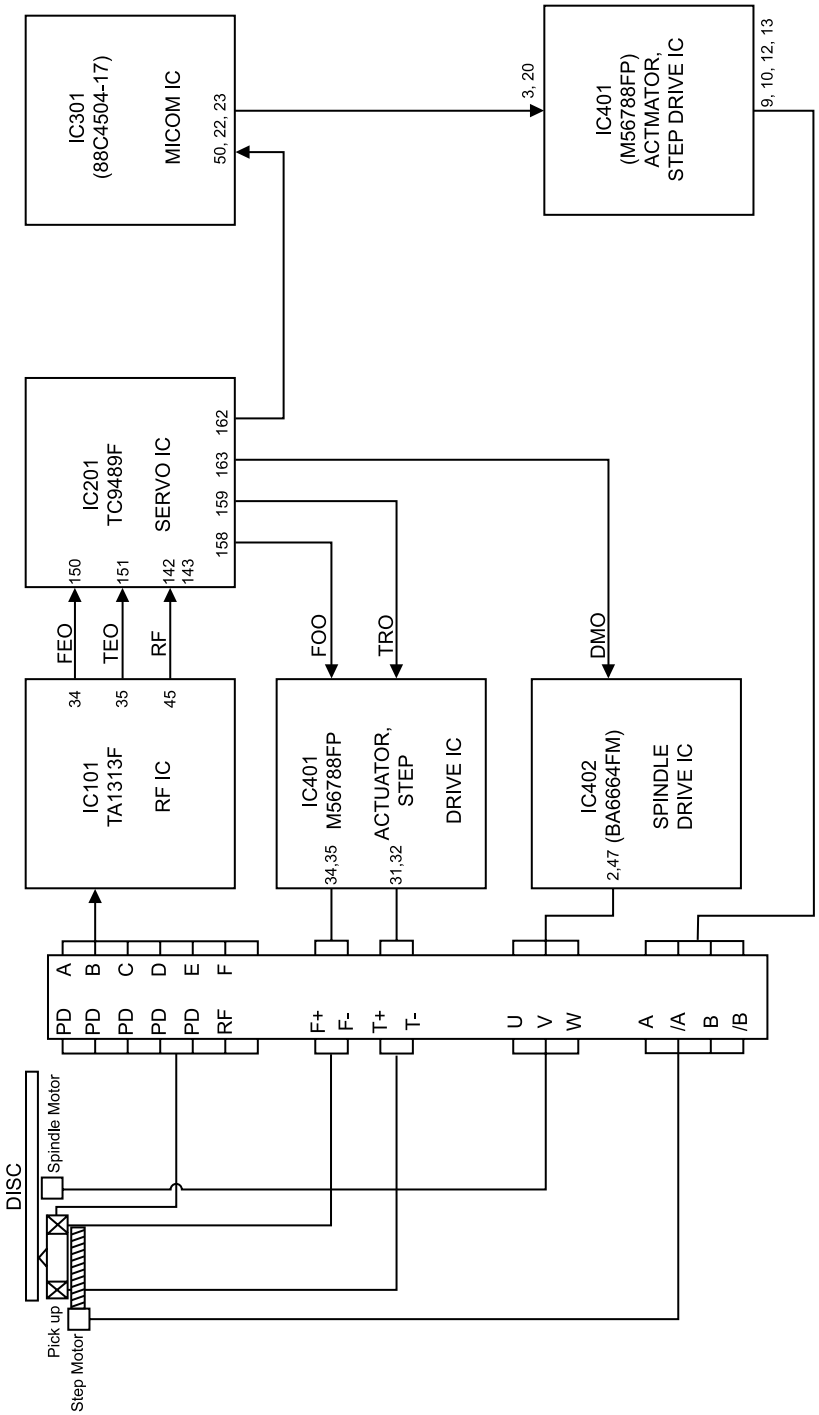


Figure 3-4

3-2-2(C) OPERATION DESCRIPTIONS

1) Focusing SERVO

(1) Focus input

The focus loop is changed from open loop to close loop. The triangular waveform moves the object lens up and down in 158pin terminal of IC201 at Focus SERVO ON. At that time, S curve is inputted to 150 pin terminal of IC201. SBAD(152pin terminal of IC201) signal, summing signal of PD A, B, C, D, is gernerated at occurrence of S curve and zero cross(1.7V) point is found by S curve and focused on when SBAD signal exceeds a regular value.

The focus loop is changed into close loop and the object lens follows the moving of disc, maintaining a regular distance with disc. While, this operations are same in CD and DVD.

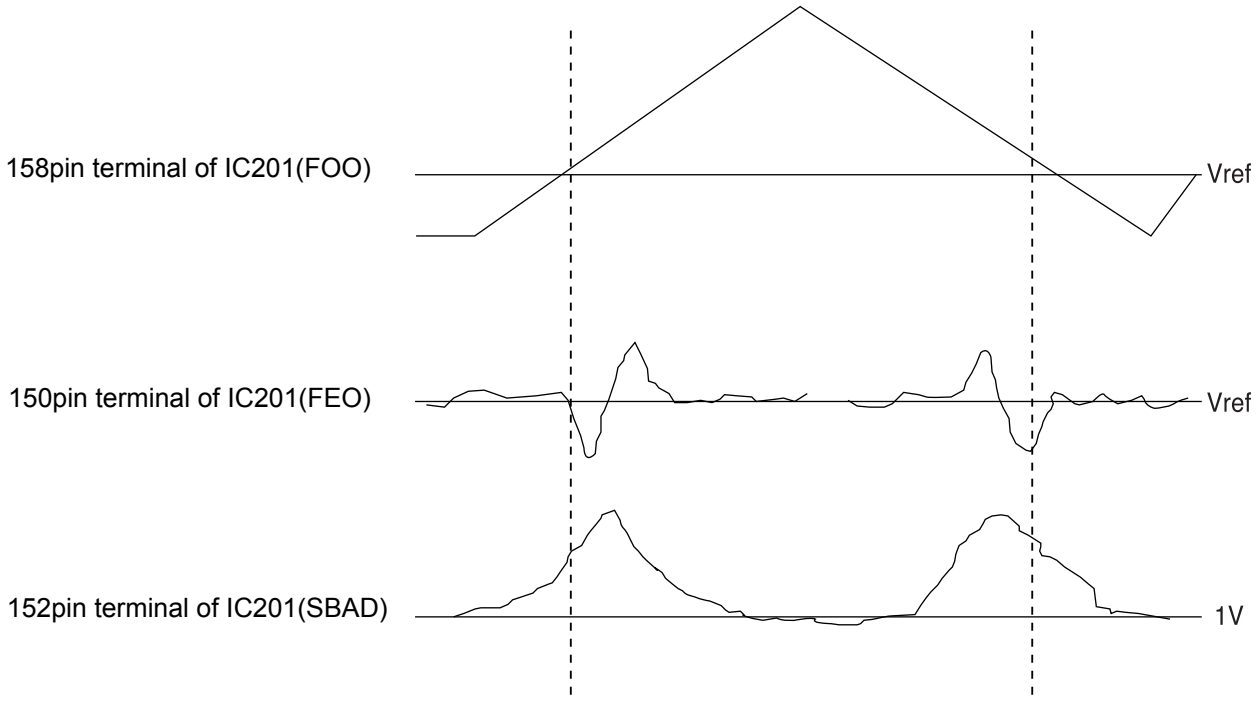


Figure 3-5

(2) Play

When focus loop gets to close loop at focus servo on, both 150pin and 158pin terminal of IC201 are contoled by Verf voltage(approx. 1.7V) and focus on cascade on the disc up and down.

2) TRACKING SERVO

◐ NORMAL PLAY MODE

(1) For DVD

Make the signal outputted though PD A,B,C,D of pick-up, tracking error signal in use of phase difference of A+C and B+D in IC101 and inputted to IC201 151(TED) terminal. This signal is outputted to IC201 159 terminal(TRO) via digital equalizer and impressed to tracking actuator through IC401, IC201 159 terminal is controlled in Vref (approx 1.7V) at normal play.

(2) For CD, VCD

Receive the signal outputted through E, F of Pick-up, from IC101, differently from DVD and make the tracking error signal through IC101 33pin terminal.

◐ SEARCH MODE

Search mode is divided into fine seek, moving the tracking actuator a little and coarse serch, moving much in use of STEP motor. The coarse search will be described in STEP linked servo and now, the fine seek is explained shortly. If the object lens is located near target, cut off the tracking loop and give the control signal as many as desired count to move the tracking actuator via IC201 159pin terminal(TRO).

3**) SLED LINKED SERVO**

◐ NORMAL PLAY MODE

During the play signal come from 162pin of IC201 where according to movement of the tracking actuator along the track,

and the signal is turn into terminal 50 of micom.

◐ COARSE SEARCH MODE

After making seek lead the track make search for ID, and check up the number of must-go-track, in case the remaining track is within the extend of fine seek, move the fine seek to object track, In case pick up move in the long distance, the step motor move to half-step use the profile of must-go velocity in micom(IC301).

4) SPINDLE MOTOR CONTROL SERVO

The FG is generated IC402 39terminal rotation of disk, and this signal is IC201 175terminal where is outputted IC201

163terminal with ckeck up velocity.

This signal is supplied in IC402 21terminal where control velocity of rotation at disk. The disk is rotated standard angular velocity(CAV FORM) without relations of the inside and the outside of circumference of pick up.

3-2-3 ATAPI interface circuit description(IC501 : TC9492F)

3-2-3(A) ATAPI

ATAPI is interface specification to add SCSI paket command to the interface of HDD and support DVD-ROM drive as abbreviation of AT ATTACHMENT PACKET INTERFACE.

3-2-3(B) Interface operation introduction

Micom judges the command type, controls SERVO IC, reads data from disk, sends to IC501 interface IC and transmitts them to host at receiving a command(READ, SEEK, etc) from host(computer). Especially, in case of READ command, it stores the data read from disk in IC502 :DRAM(V53C16258HK25) before transmission to host.

◐ **CD-ROM disk**

Data are transferred to interface IC(IC501:TC9492F) though servo(IC201:TC9489F), stored in memory after decoding and error correcting and then sent to host.

◐ **DVD-VIDEO, ROM disk**

Data are transferred to interface IC501 through copy protection Servo IC(IC201:TC9489F)after error correcting in data processor and stored in memory before transmission to host.

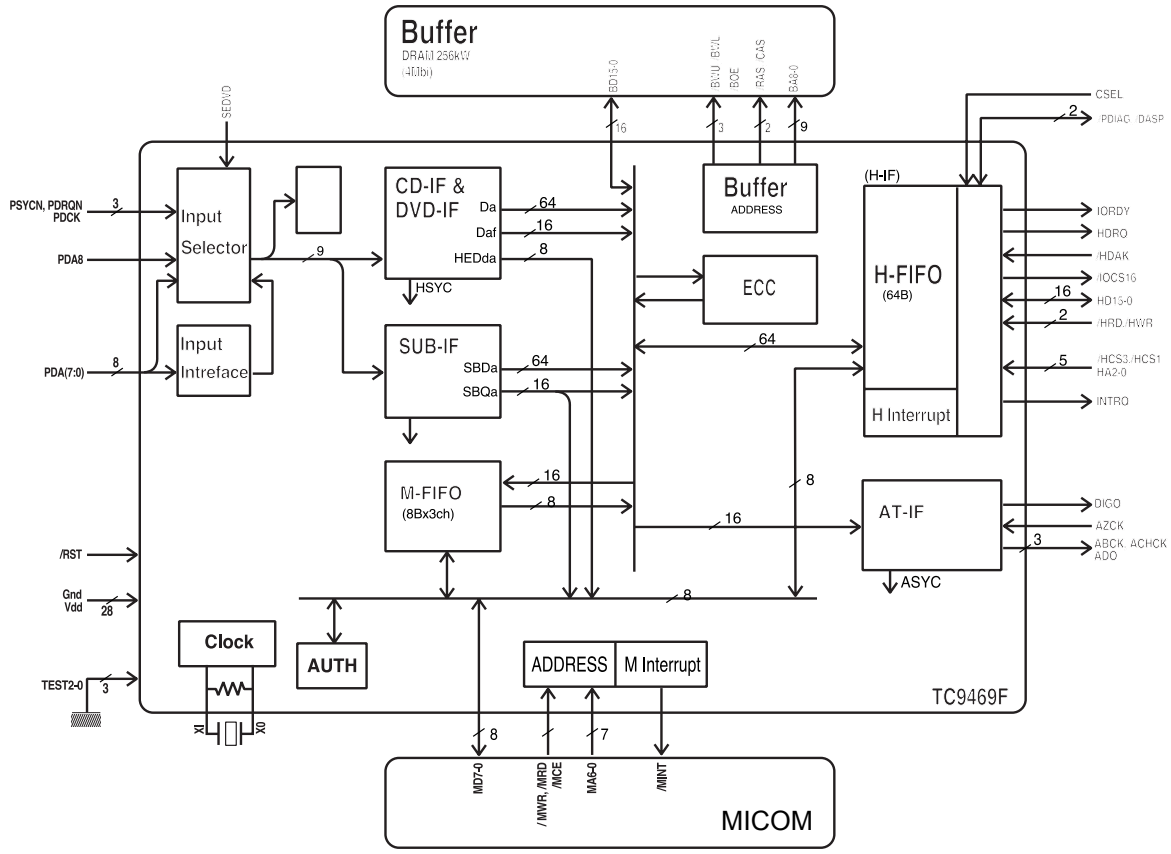


Figure 3-6

3-2-3 ATAPI interface circuit description(IC501 : TC9492F)

For flash memory using model, the version may be changed by downloading the micom program in PC without ROM replacement.
Utilize FROMDOS.EXE supplied separately as download program.

2.Specifications

The specification and design may be altered without previous notice and the below weight and dimensions are approximate values.

General option	Drive type		Computer built-in
	Power consumption		DC +5V, 1.5A DC +12V, 1.0A(MAX)
	Weight		860g
	Dimension		149mm(W) X200mm(D) X 42.5mm(H)
	Allowable operational temperature		+5˚C ~ +45˚C
	Allowable operational humidity :		8% ~ 80%
Electrical features	Standard mode		CD-ROM Mode 1,2
	Interface		ATAPI BUS (IDE)
	Data transfer rate		CD-ROM : 6,000Kbyte/sec, DVD-ROM :10,800Kbyte/sec
	ACCESS TIME	CD-ROM	1/3 stroke Below: 110ms full stroke Below : 200ms
		DVD-ROM	1/3 stroke Below : 130ms full stroke Below : 230ms
	Buffer capacity		512KB
	Error ratio	CD-ROM	Mode 1 : Below 10^{-12} Mode 1 : Below 10^{-9}
		DVD-ROM	Below 10^{-15}
	Frequency response		20Hz to 2KHz : Below ±3dB
	Signal to noise ratio		LINE OUT over : 75dB H/PHONE over : 65dB
	Distortion factor		Below 0.15%(1KHz)
	Signal output level		LINE OUT : 0.7Vrms±20% H/PHONE : 0.6Vrms±20%
	Laser		Semiconductor laser

4. Disassembly and assembly

4-1. Exterior and PCB disassembly

4-1-1 Door-tray

1) Supply power to open the tray ❷ in direction of arrow “A”
2) Lift up the door ❶ in direction of arrow “B”
3) Close the tray ❷ and power off.

Reference : If the tray ❷ doesn't open, push the clip ❸ into specified hole shown in detailed figure to open it compulsorily.

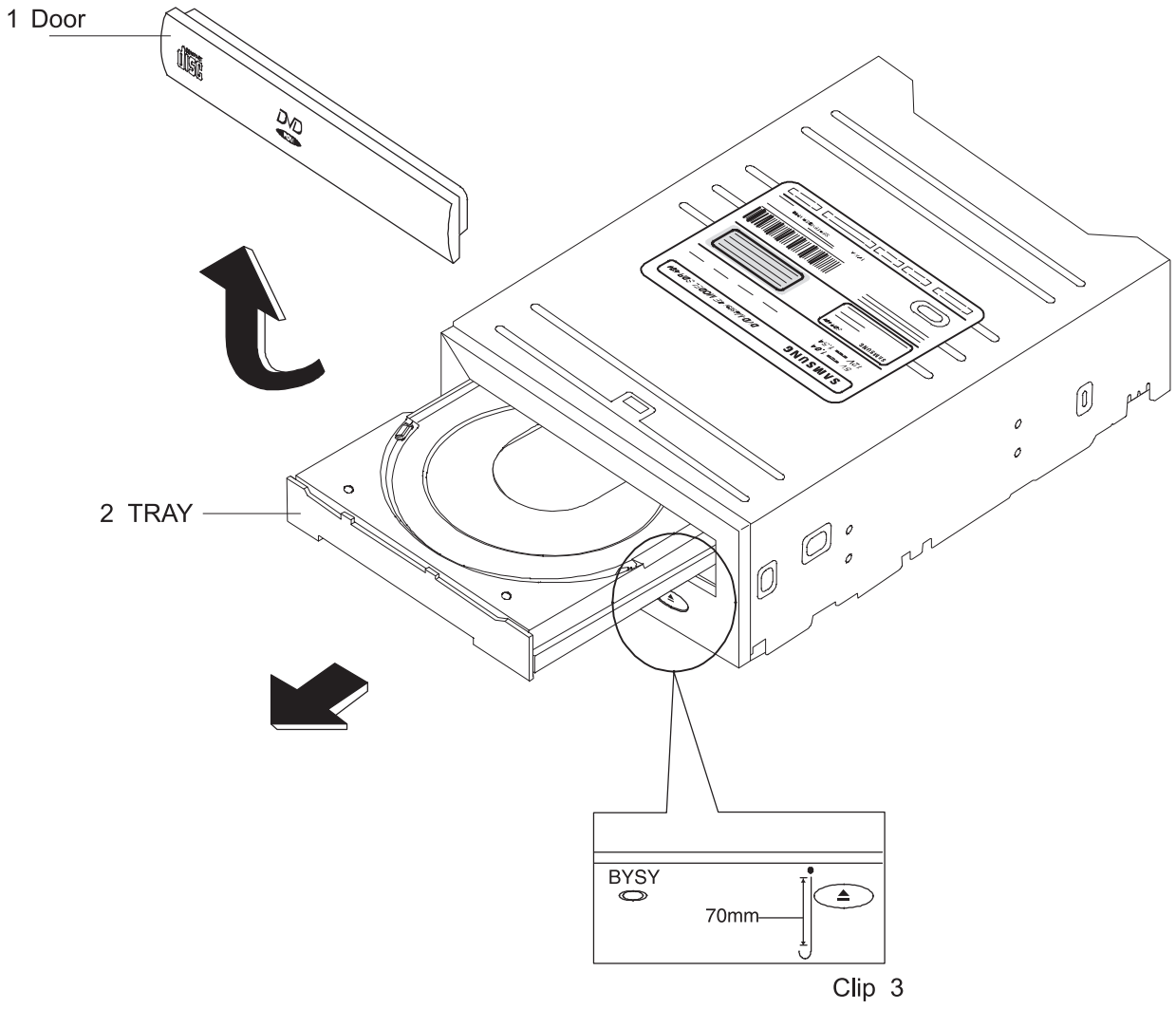


Figure 4-1 Door-tray

4-1-2 Panel-front

1) Remove 6 hooks ❶
2) Take out the panel-front ❷forward.

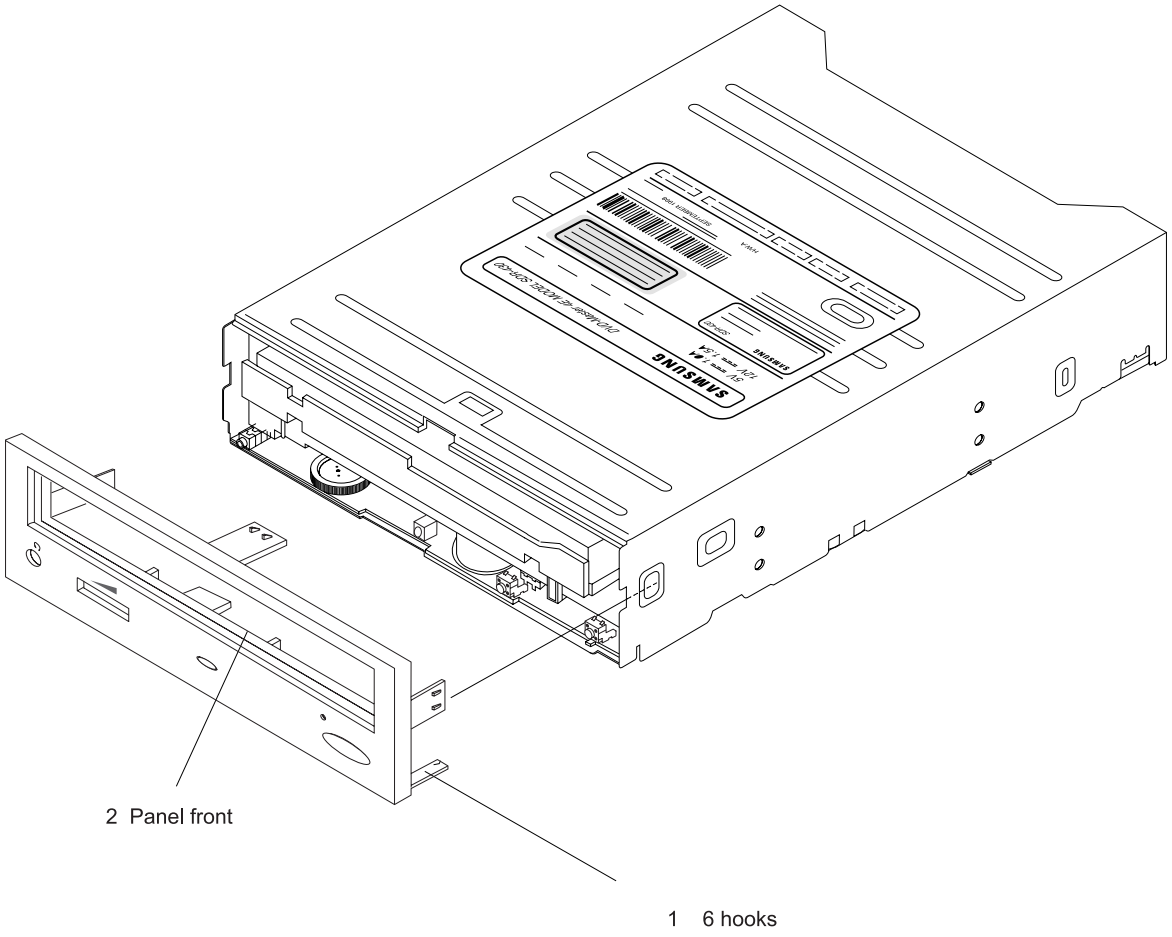


Figure 4-2 Panel-front

4-1-3 Top-cabinet

1) Remove 4screws ❶in the bottom
2) Lift up the top-cabinet ❷

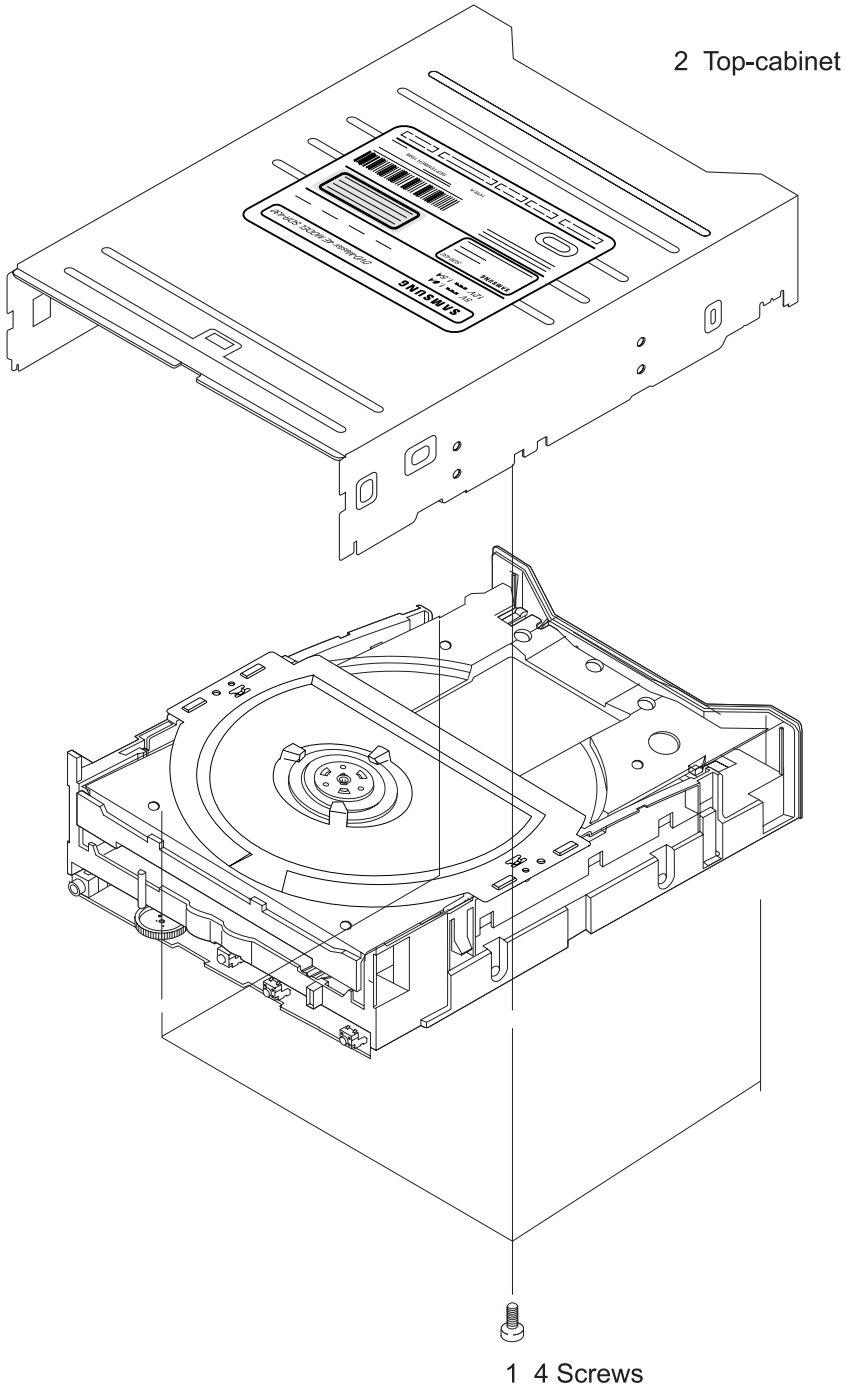


Figure 4-3 Top-cabinet

4-1-4 Ass'y-frame Low

1) Lift up the ass'y frame low ❷

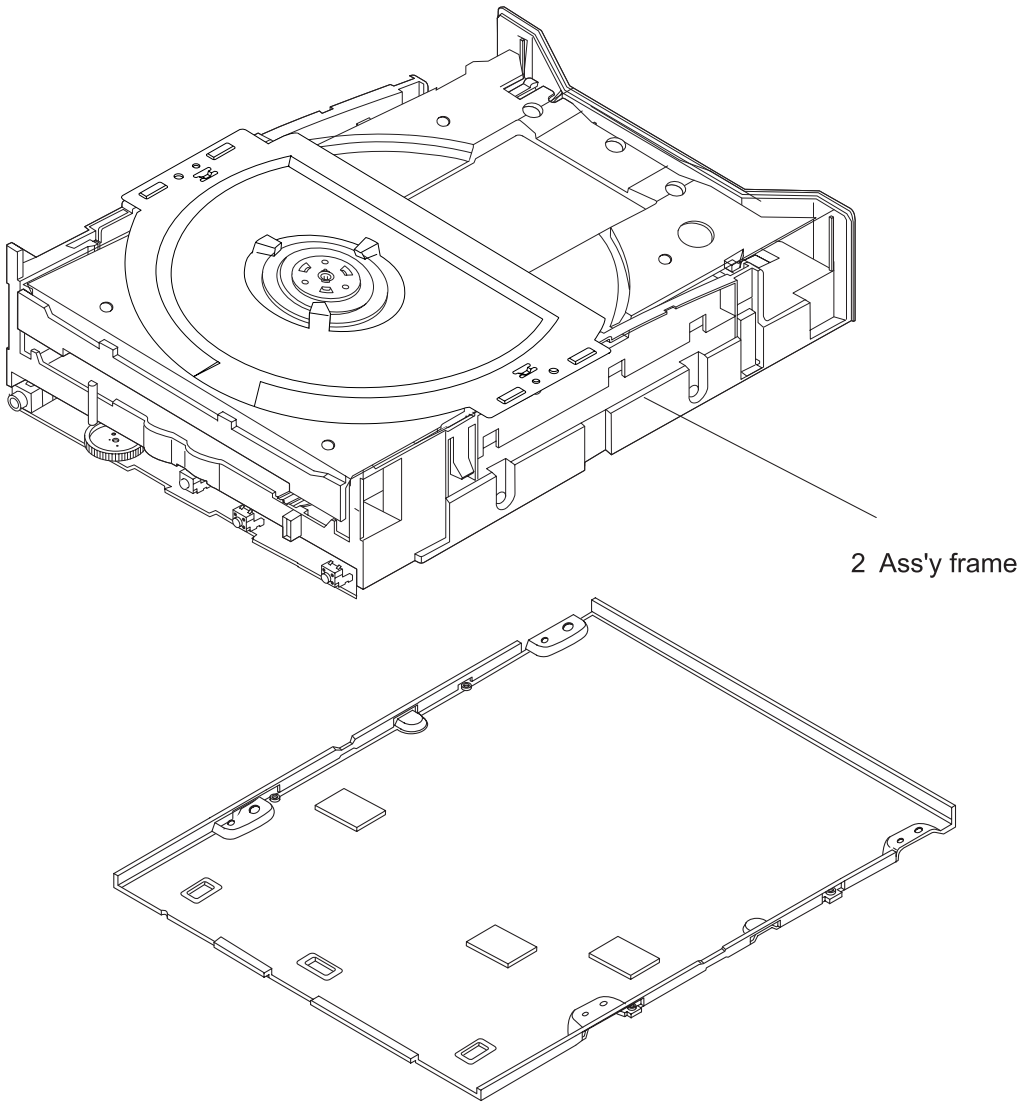


Figure 4-4 Ass'y-frame Low

4-1-5 MAIN-PCB

1) Remove 4hooks ❶for PCB fixing in deck.
2) Disassemble the MAIN-PCB ❷
3) Disassemble the pick up FPC ❸in PCB.
4) Remove soldering at motor connection wire ❹PCB.
5) Disassemble the FPC ❺between Main PCB and Front PCB.
6) Disassemble the FPC ❻between Main PCB and Front PCB.

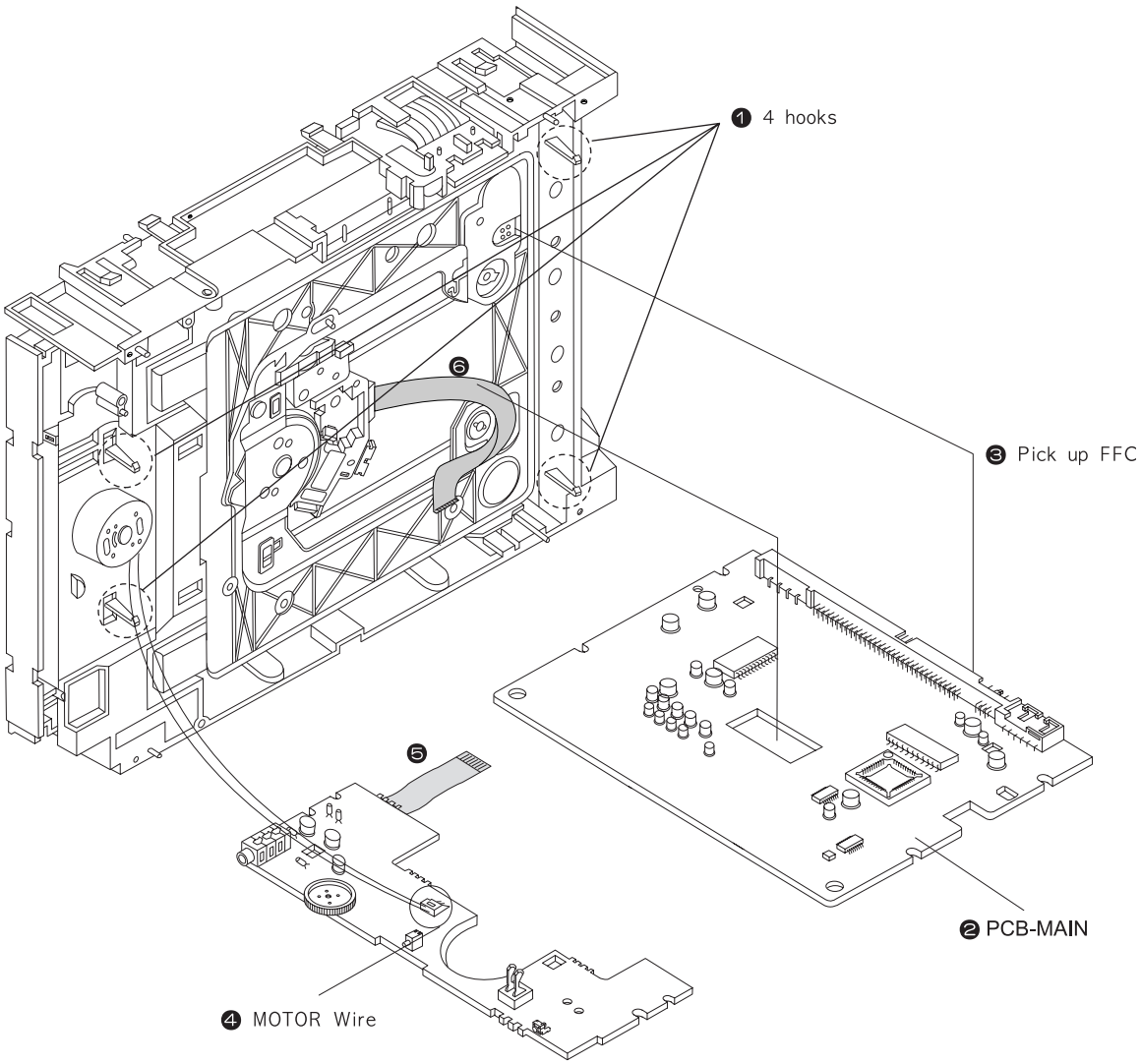


Figure 4-5 Disassembly connector

4-2 Deck disassembly

4-2-1 Tray, Clamper

1) Remove 4screws ❶
2) Lift up the ass'y clanper ❷
3) Push 2hooks ❸
4) Lit up the tray ❹

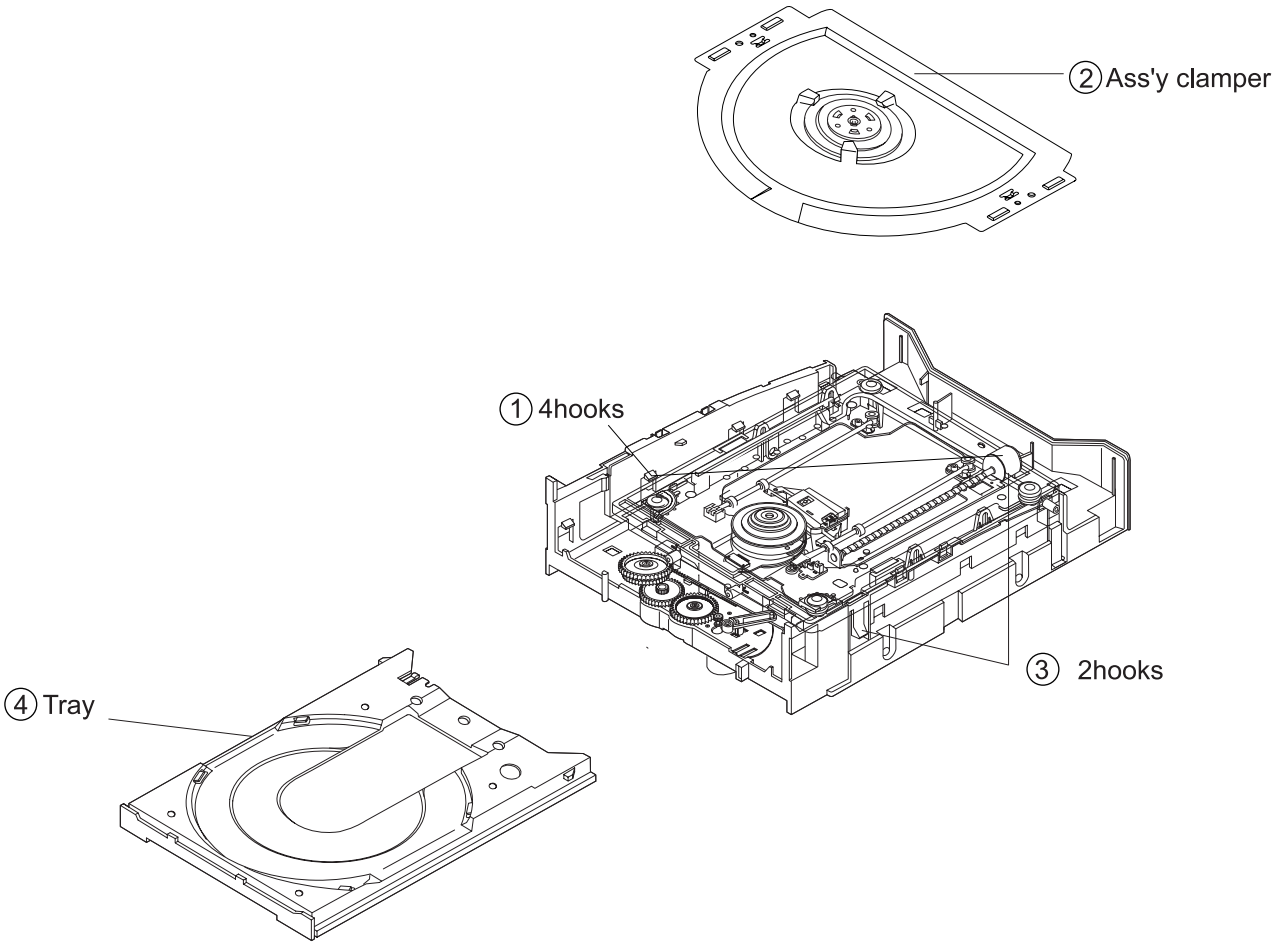


Figure 4-6 Tray, Clamper

4-2-2 Ass'y-Deck DVD

1) Move the slide cam ❶ in left direction.
2) Disassemble the ass'y-deck DVD in ❶ arrow "B" direction with pushing the 2hooks ❶ in direction of arrow "A"

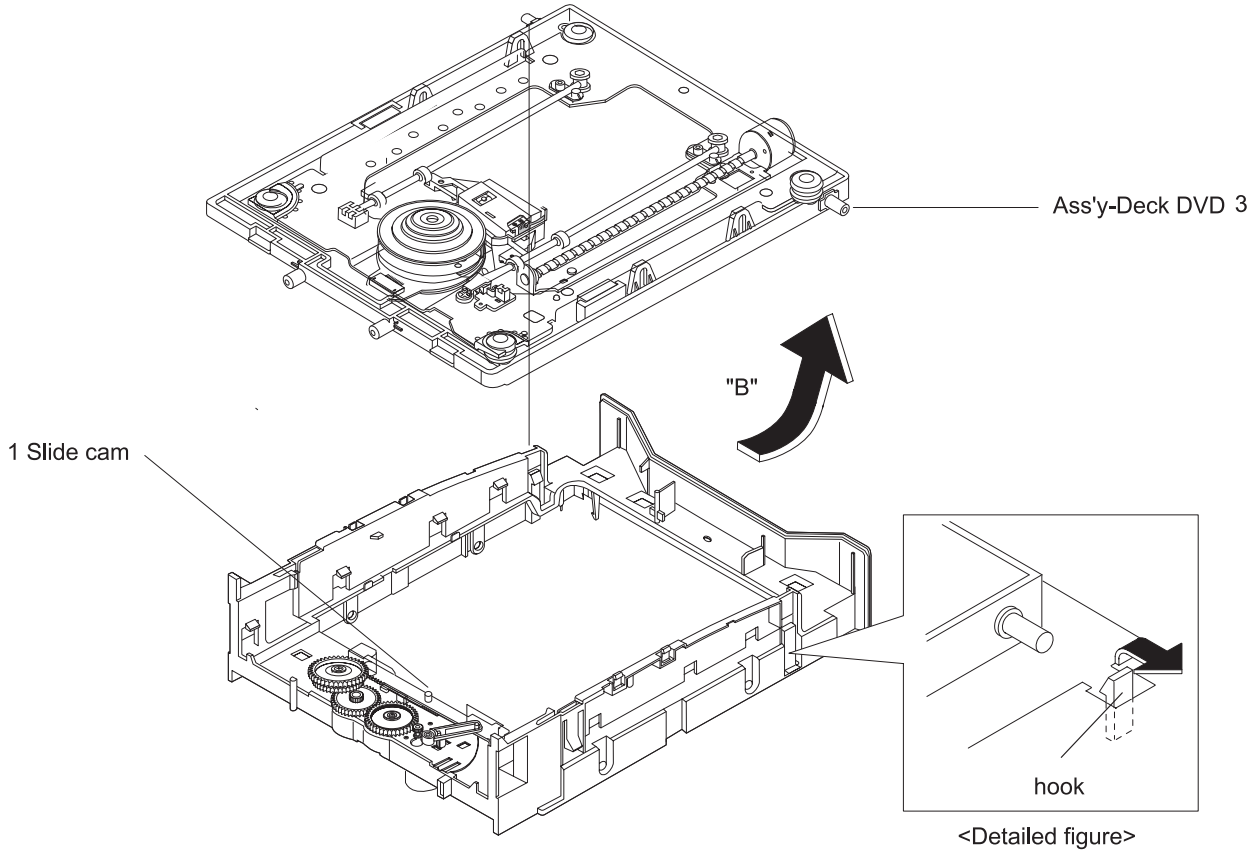
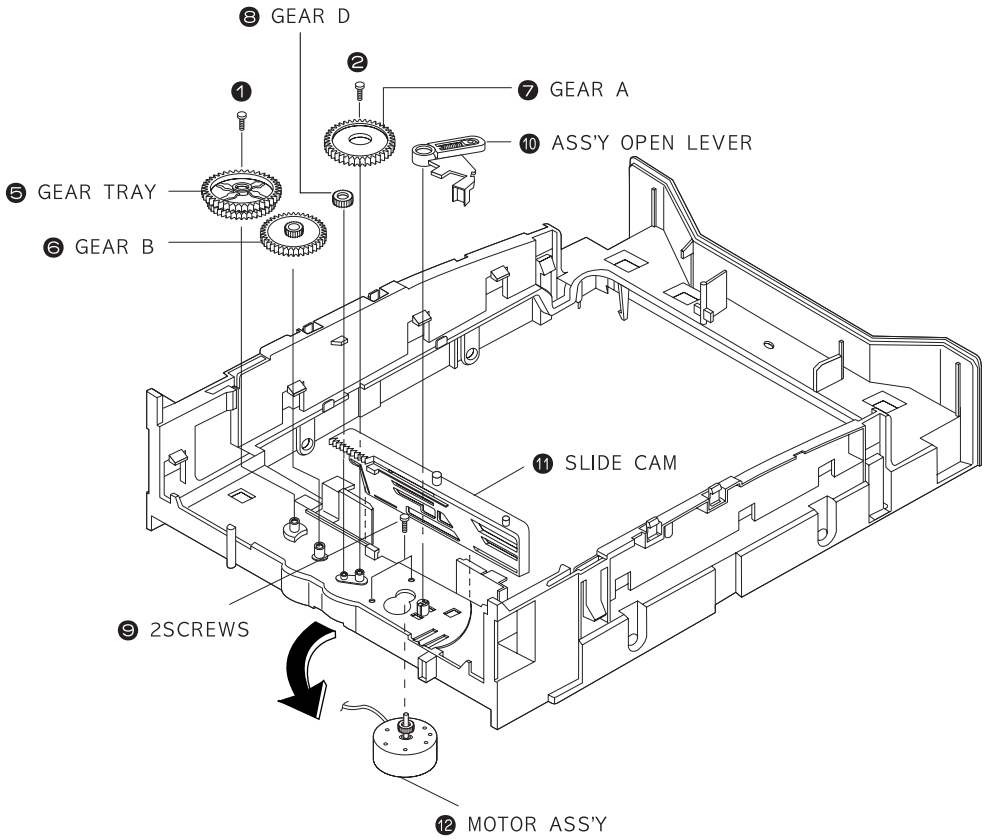


Figure 4-7 Ass'y-Deck DVD

4-2-3 Chassis-main individual materials

1) Remove screw ❶, and lift up the GEAR TRAY ❺
2) Lift up the GEAR B ❻
3) Remove screw ❷and lift up the GEAR A ❷, GEAR D ❽
4) Lift up the ASS'Y OPEN LEVER ❿
5) Lift up the SLIDE CAM ⓫
6) Remove 2screw ❾, and remove the MOTOR ASS'Y ⓬in "A" direction



◐ Assembling the motor and pulley: The height of pulley shall be same as the endd of motor shaft.

Figure 4-8 Chassis-main individual materials

4-2-4 Ass'y-deck

1) Remove 4screws ❶
2) Lift up the Ass'y-deck ❷
3) Remove the pick-up FPC ❸ in "A"

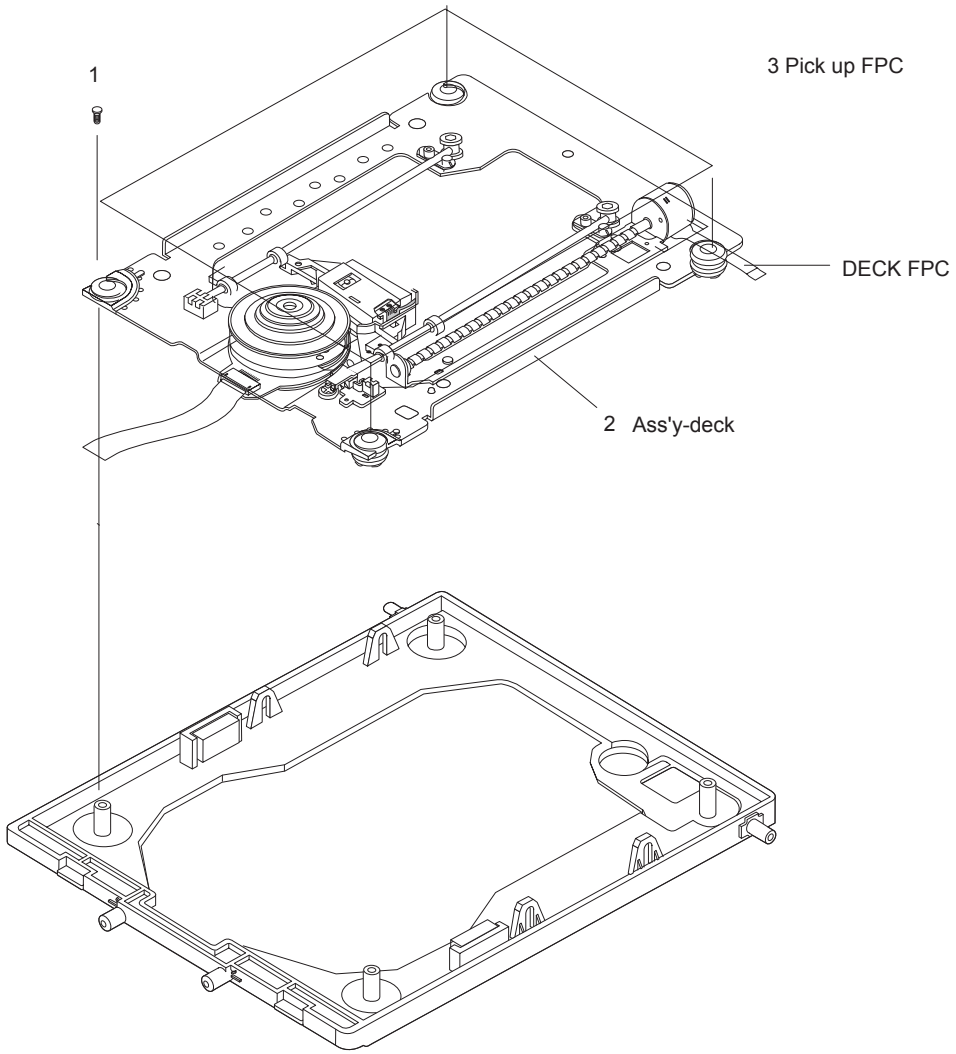


Figure 4-9 Ass'y-deck

4-2-5 Ass'y-deck individual materials

1) Remove 4 dampers ❶
2) Rotate 180º the SHAFT COVER ❷ in CCW direction.
3) Remove 2screws ❸, and remove the 2 CAMs ❹, and lift up P/U ❺
4) Lift up the Ass'y ❻
5) Remove 3screws ❼, and remove the MOTOR SPINDLE ❽, and disassemble the DECK-FPC ❾
6) Remove 2screws ❿, and disassemble the STEP MOTOR
7) Remove 1screw and disassemble the spring plate ⓫

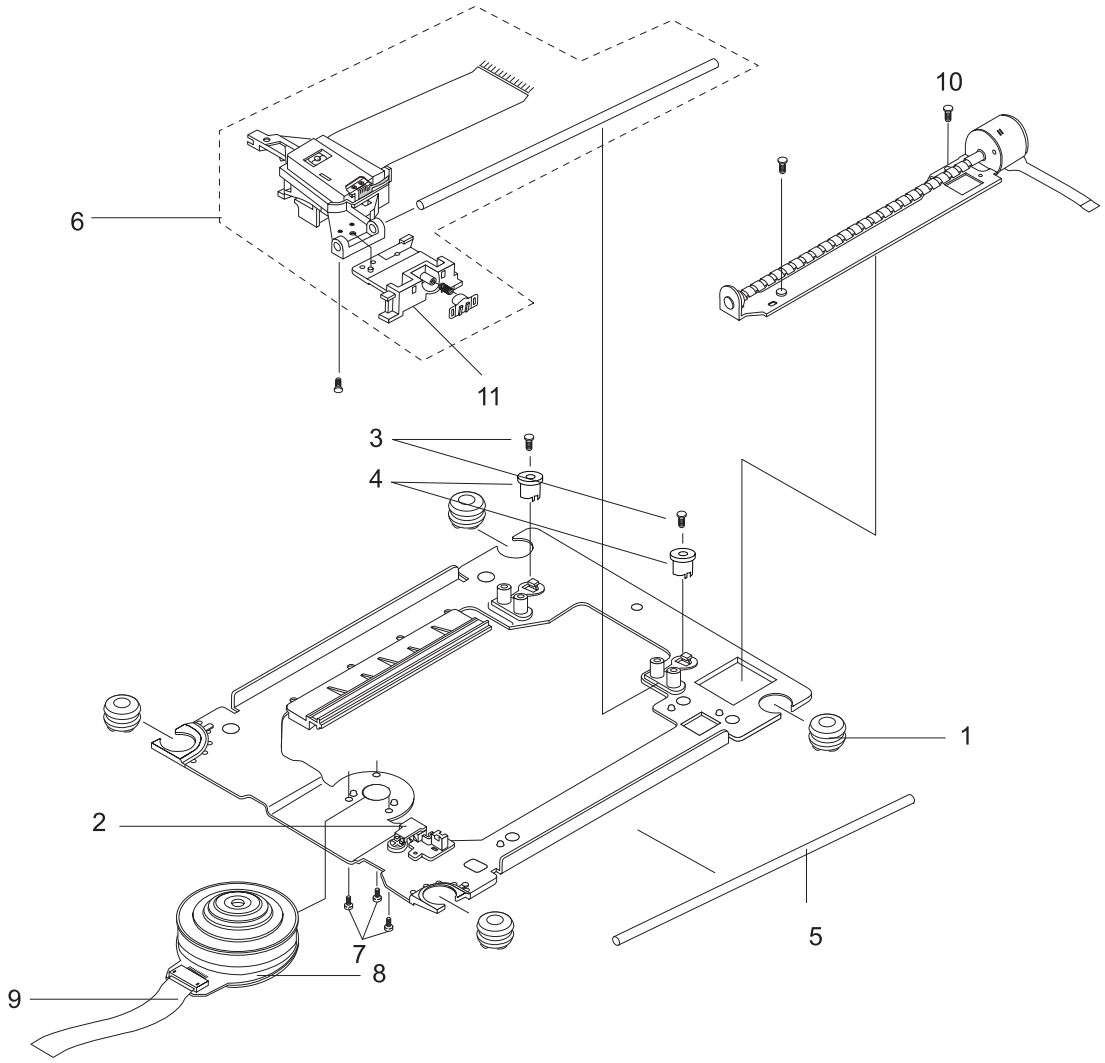


Figure 4-10 Ass'y-deck individual materials

5. PLL ADJUSTMENT

5-1. PLL adjustment (FOR DVD)

1) Control method.

Using disc : DVD single
Use PLL control Mode of JIG TEST PROGRAM.
(PAUSE OFF & PLL Control MODE SETTING around LBA 100,000)
Control VR201 to set the voltage of PIN126(PESV) of IC201 (TC9489) and VREf (about 1.7V) to be the same.

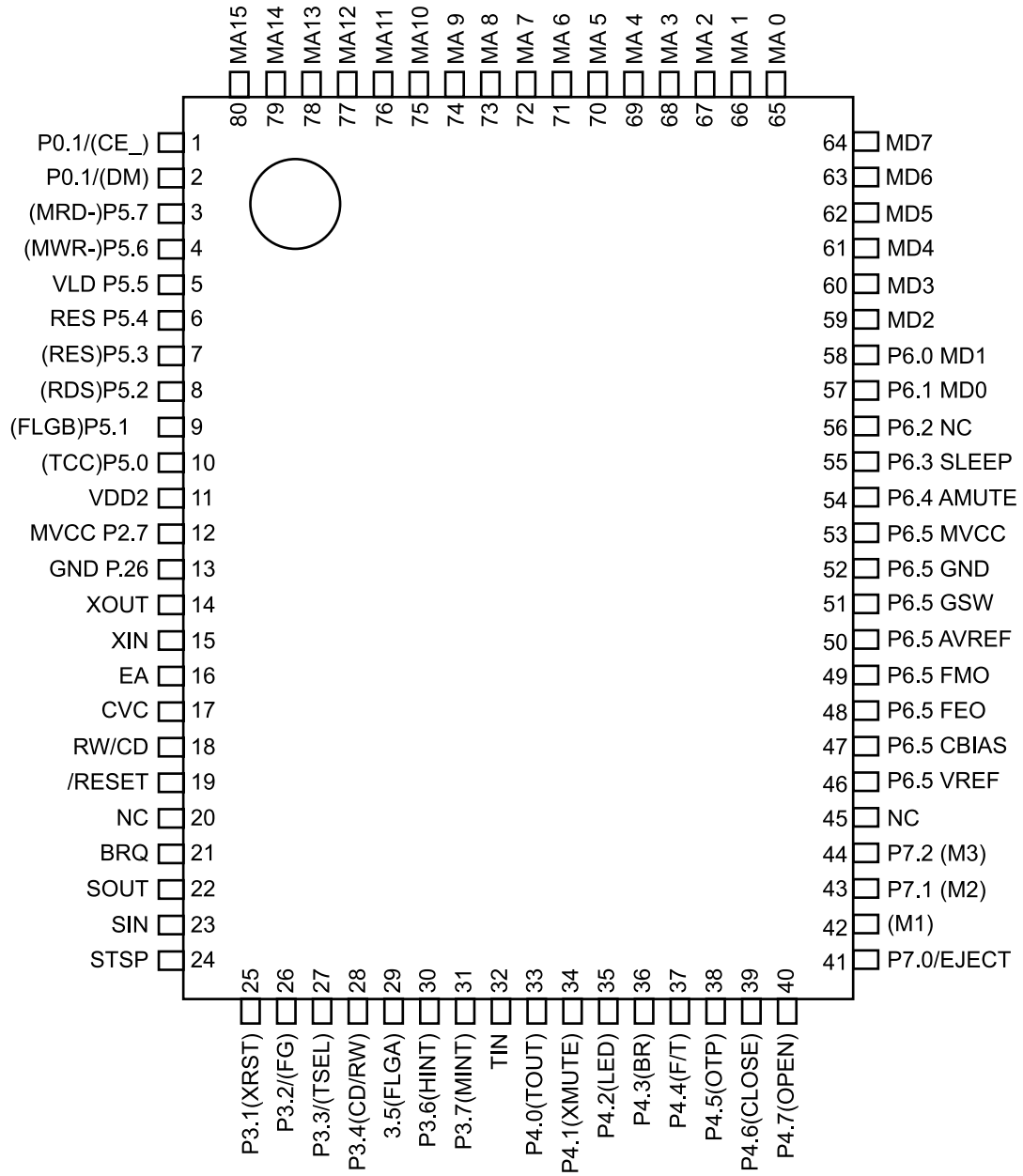
2) Control Spec.

The central value of signal variations of PIN126 and Voltage of VREF to be identical.
Allowed variation range : ±200mV.
The range of the angle of VR201 : +/- 90
(Basically the difference of voltage between PIN126 and VREF must be controlled to be 0)

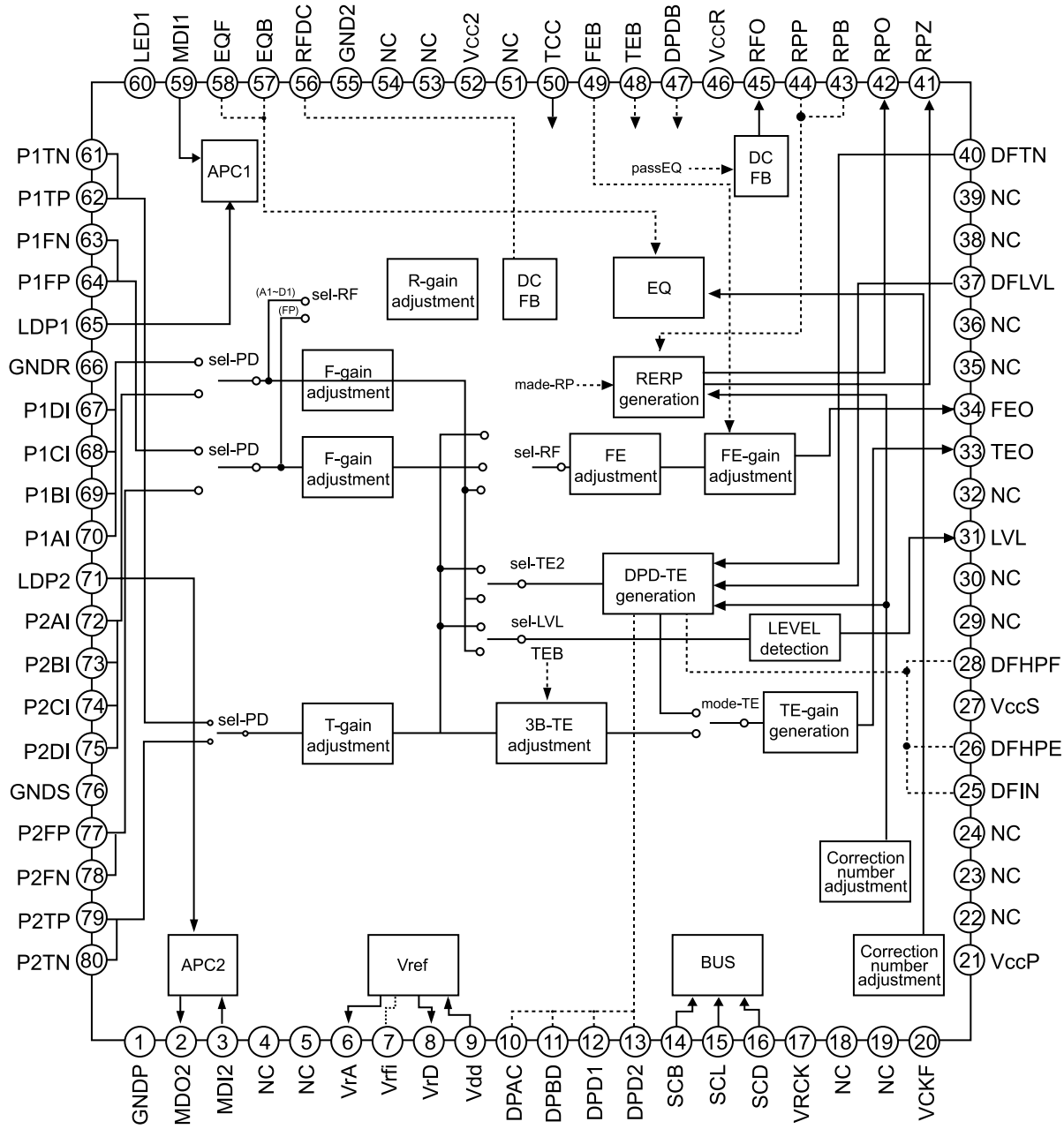
<MAIN-PCB ; SOLDER>

3-4 IC internal block and IC pin option

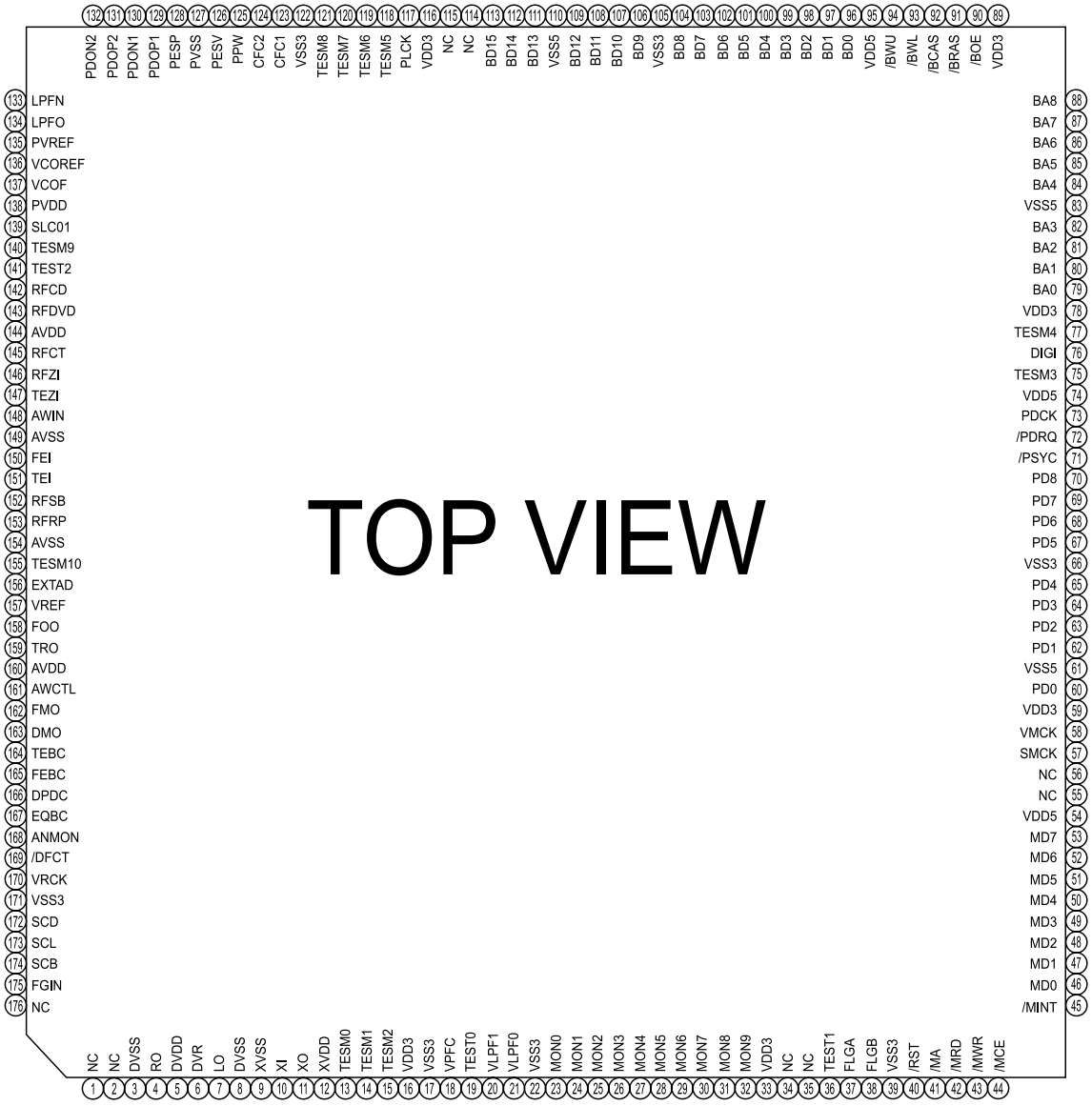
3-4-1 IC301 (KS88C4504)



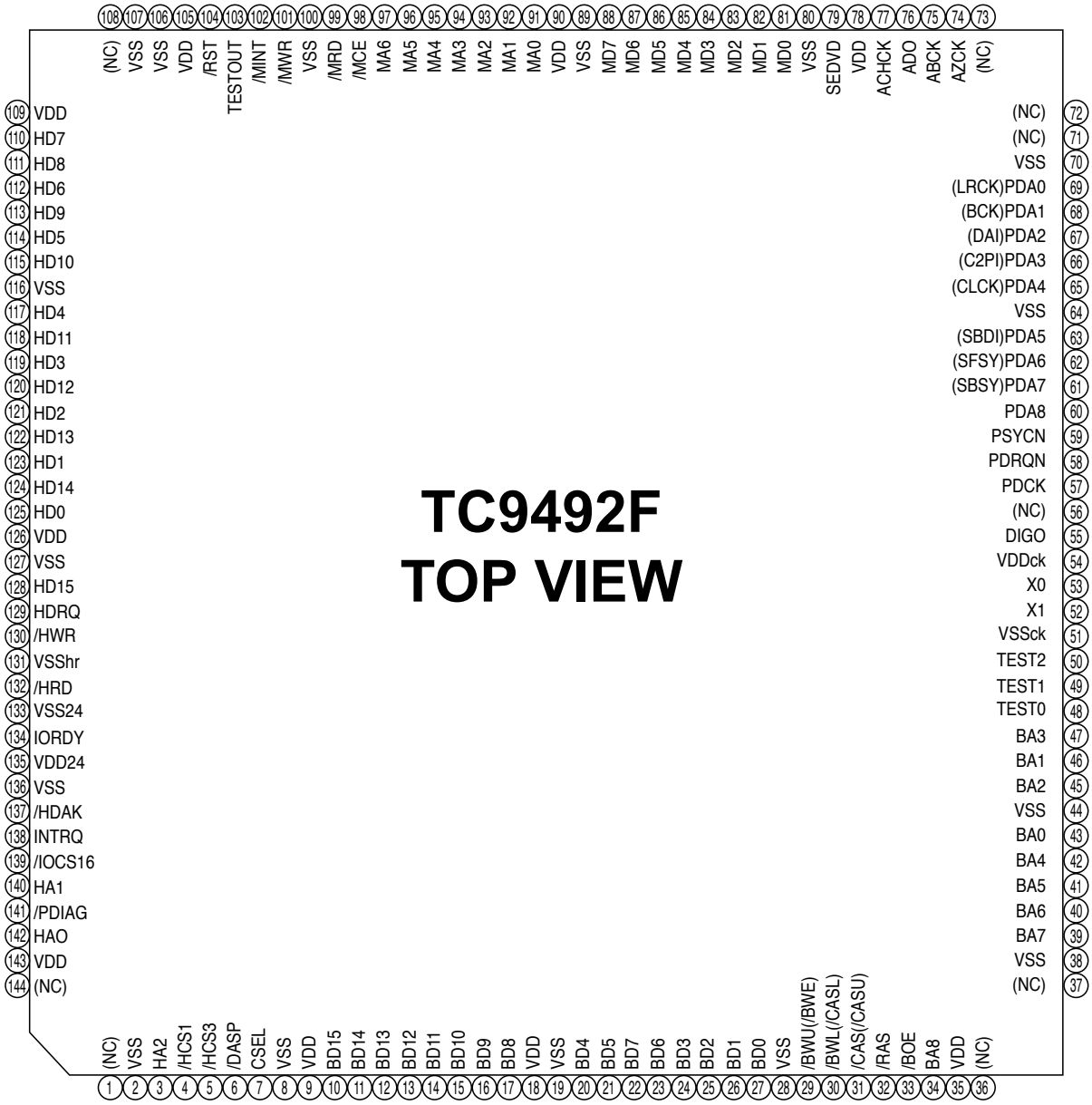
3-4-2 IC101 (TA1313F)



3-4-3 IC201 (TC9489F)

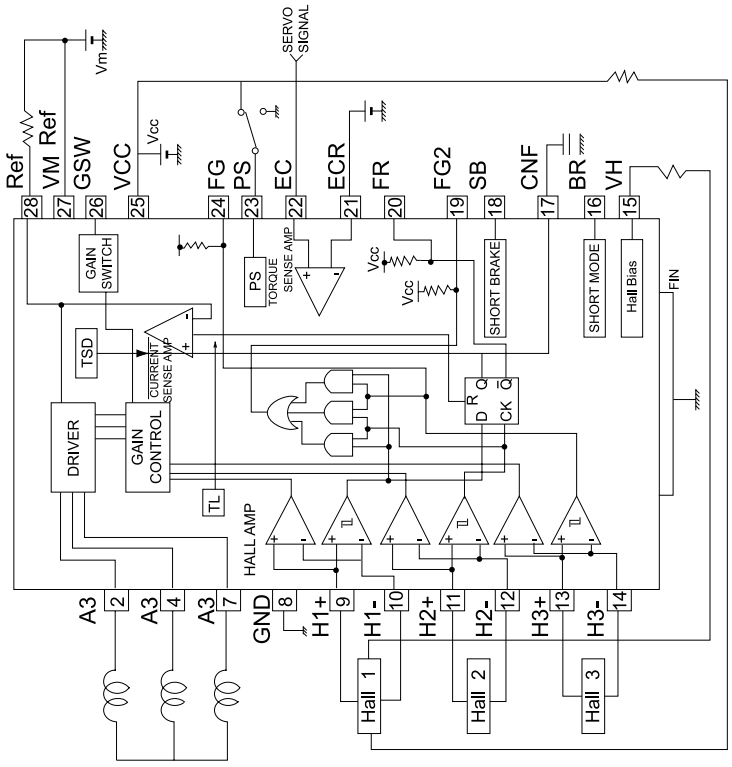


3-4-4 IC501 (TC9492F)

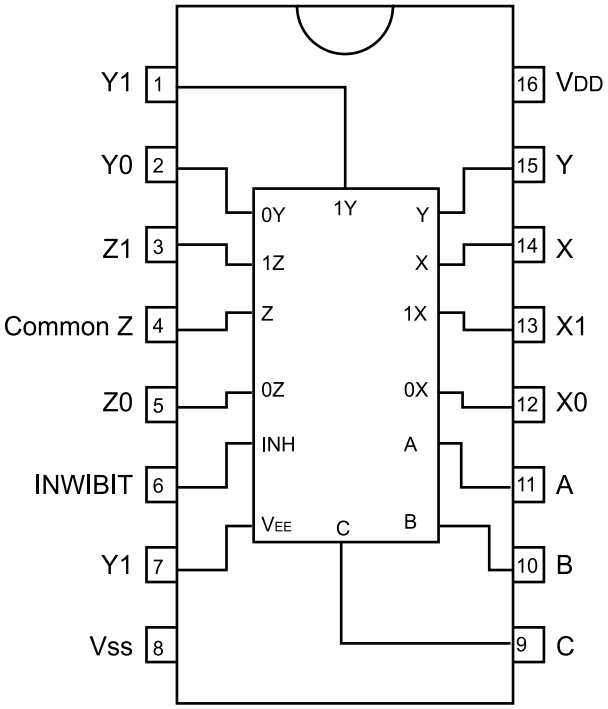


3-4-5 IC401 (M56788FP)

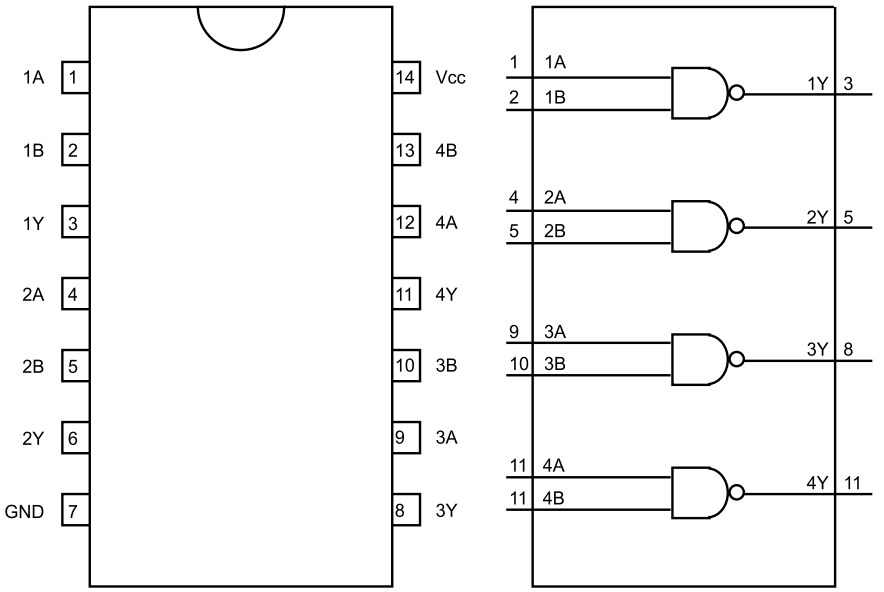
3-4-6 IC402 (BA6664FM)



3-4-7 IC110 (74VHC4053)



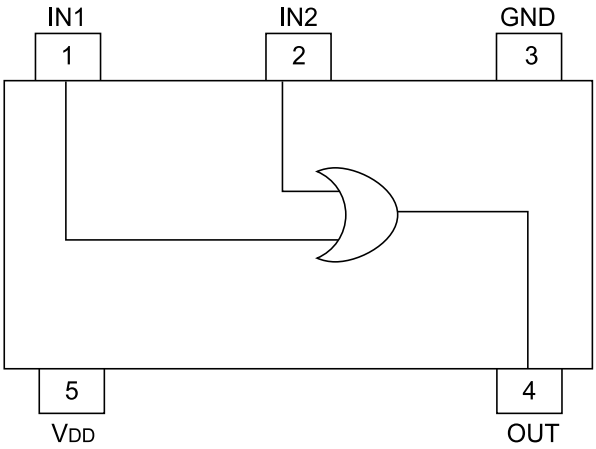
3-4-8 IC310 (74HCOO)



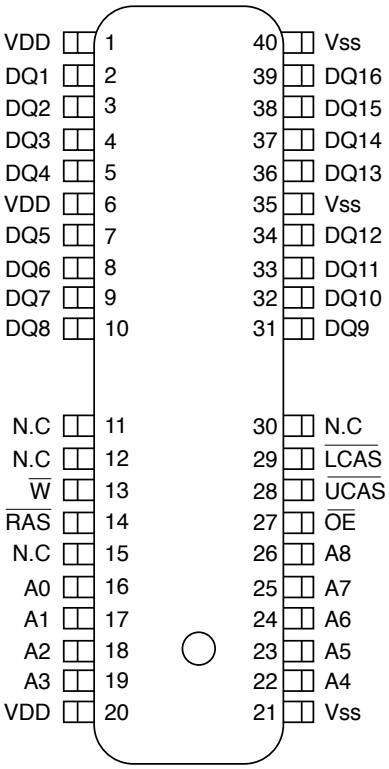
INPUTS		OUTPUTS
nA	nB	nY
L	L	H
L	H	H
H	L	H
H	H	L

H=HIGH voltage level
L=LOW voltage level

3-4-9 IC303 (TC7S32F)

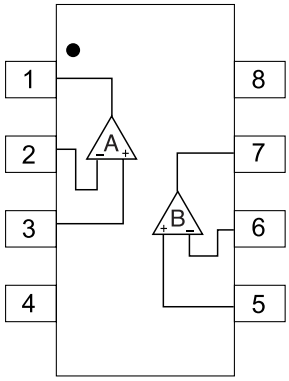


3-4-10 IC203, IC502(V53C162J8HK25)



Pin Name	Pin Function
A0-A8	Address Inputs
DQ1-DQ16	Date In/Out
Vss	Ground
$\overline{RAS}$	Row Address Strobe
$\overline{UCAS}$	Upper Column Address Strobe
$\overline{LCAS}$	Lower Column Address Strobe
$\overline{W}$	Read/Write Input
$\overline{OE}$	Date Output Enable
V_{DD}	Power(+5V)
	Power(+3.3V)
N.C	No Connection

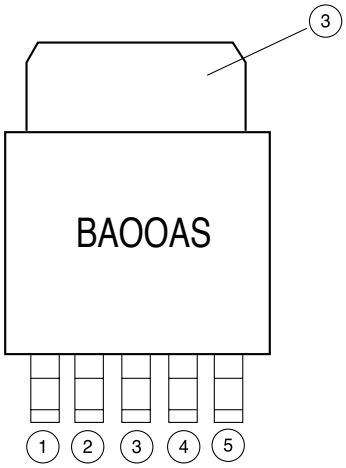
3-4-11 IC460(NJM3414)

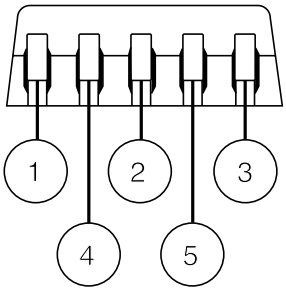


PIN FUNCTION

1. A OUTPUT
2. A-INPUT
3. A+INPUT
4. GND
5. B+INPUT
6. B-INPUT
7. B OUTPUT
8. V+

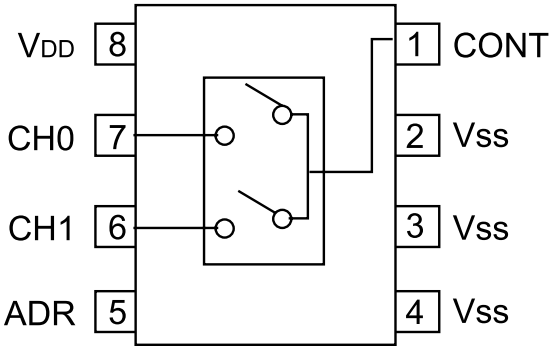
3-4-12 IC802(BA00ASFP-B)



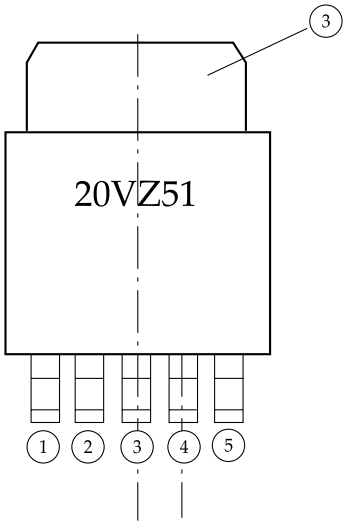


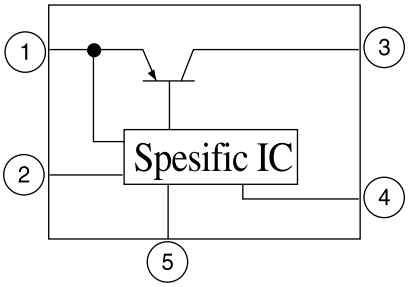
① ON/OFF control(Vc)
② DC input(Vin)
③ GND
④ DC output(Vo)
⑤ Output voltage adjustment(Vadj)

3-4-13 TC4W53F)



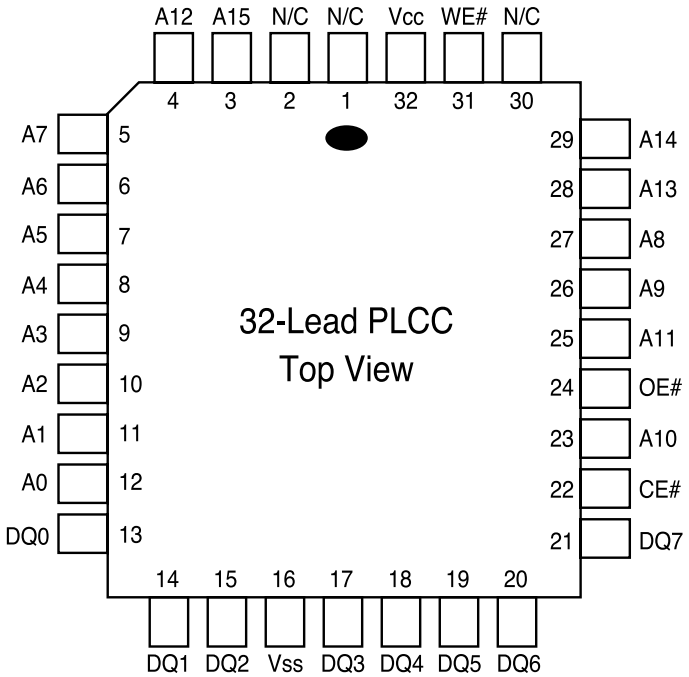
3-4-14 IC801(PQ20WZ51)



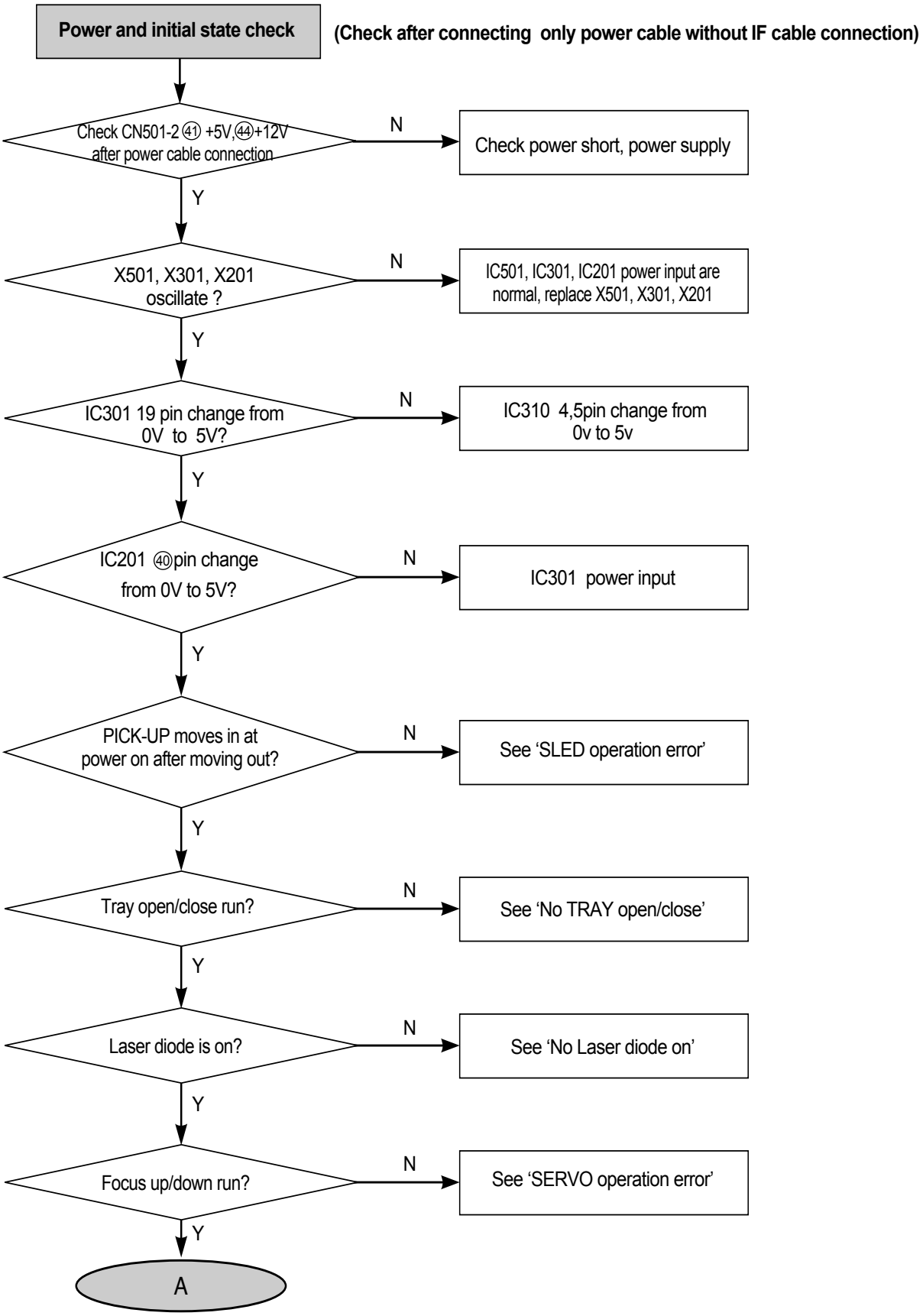


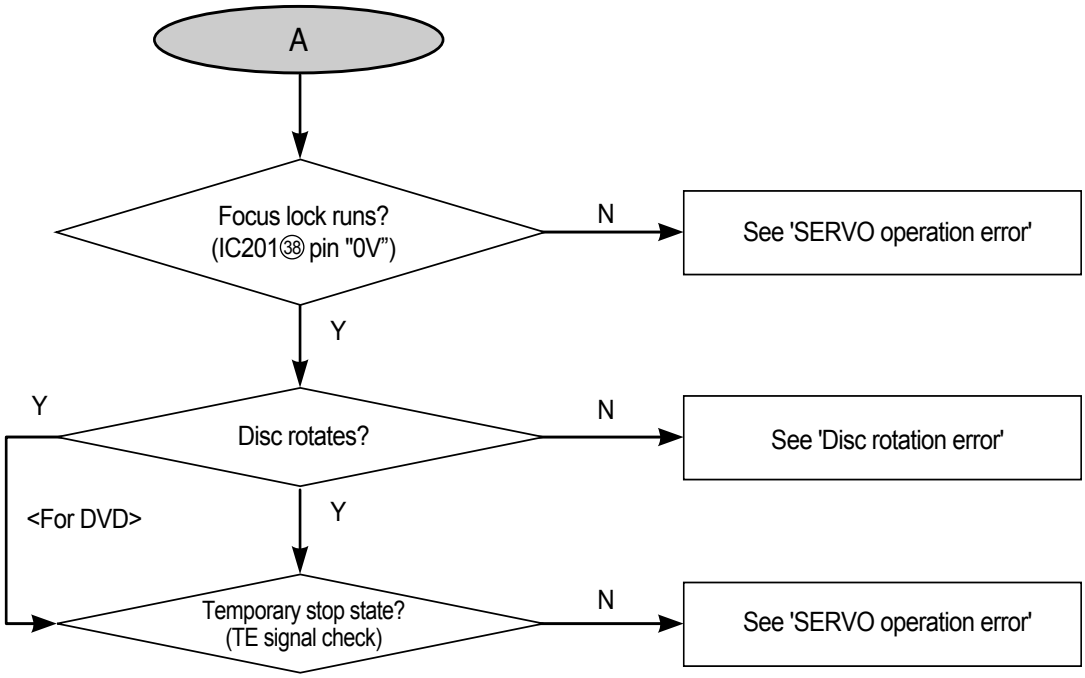
Pin No	Pin Name
①	DC input(VIN)
②	ON/OFF control terminal(VC)
③	DC output(VO)
④	Output voltage minute adjustment terminal(VADJ)
⑤	GND

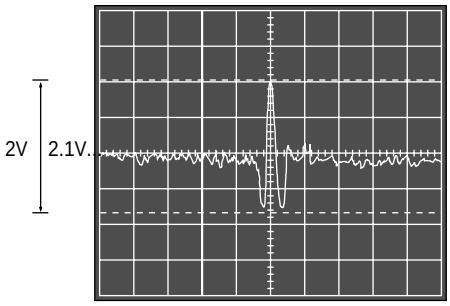
3-4-15 IC302(29EE512)



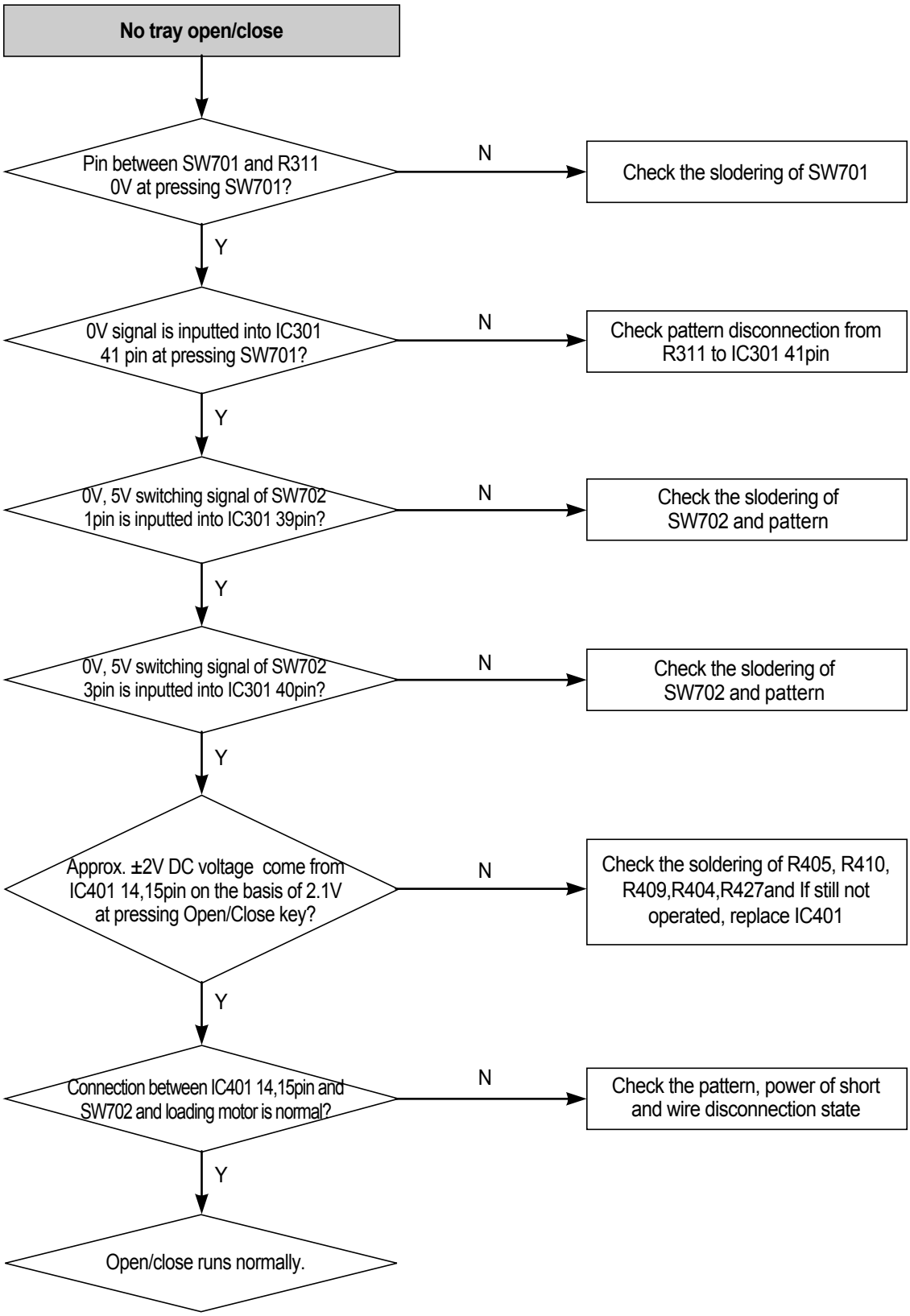
3-3 Trouble shooting

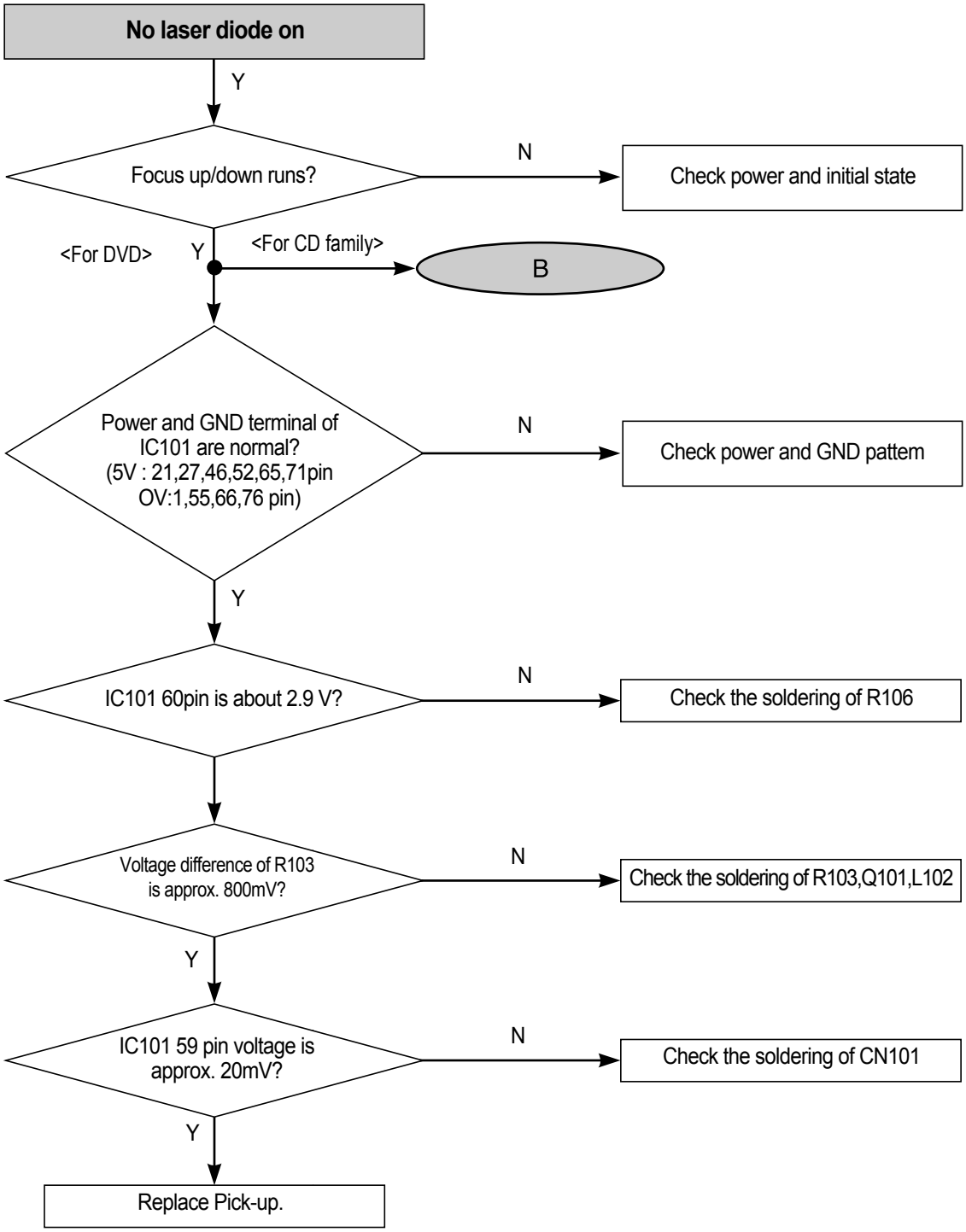


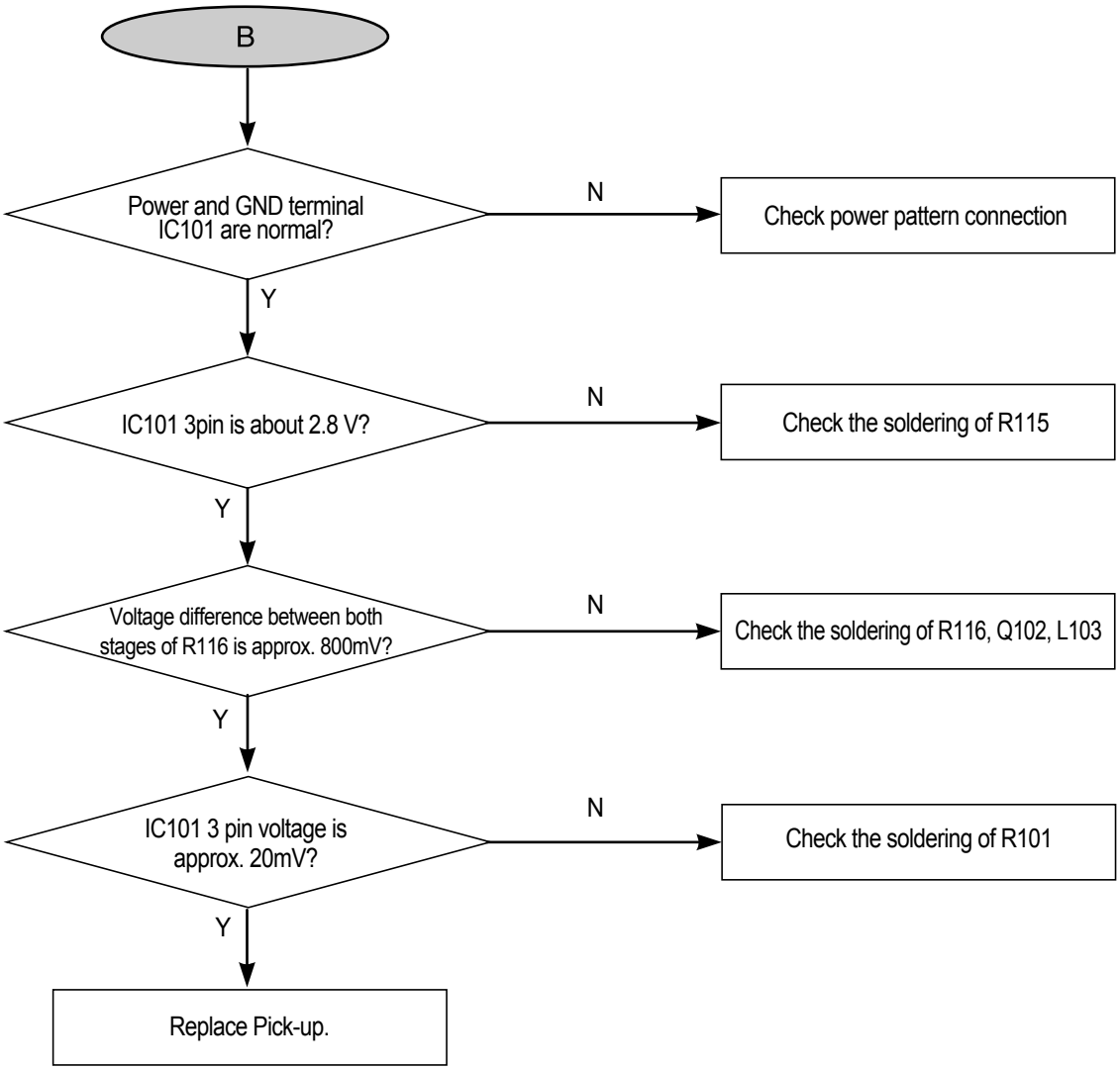


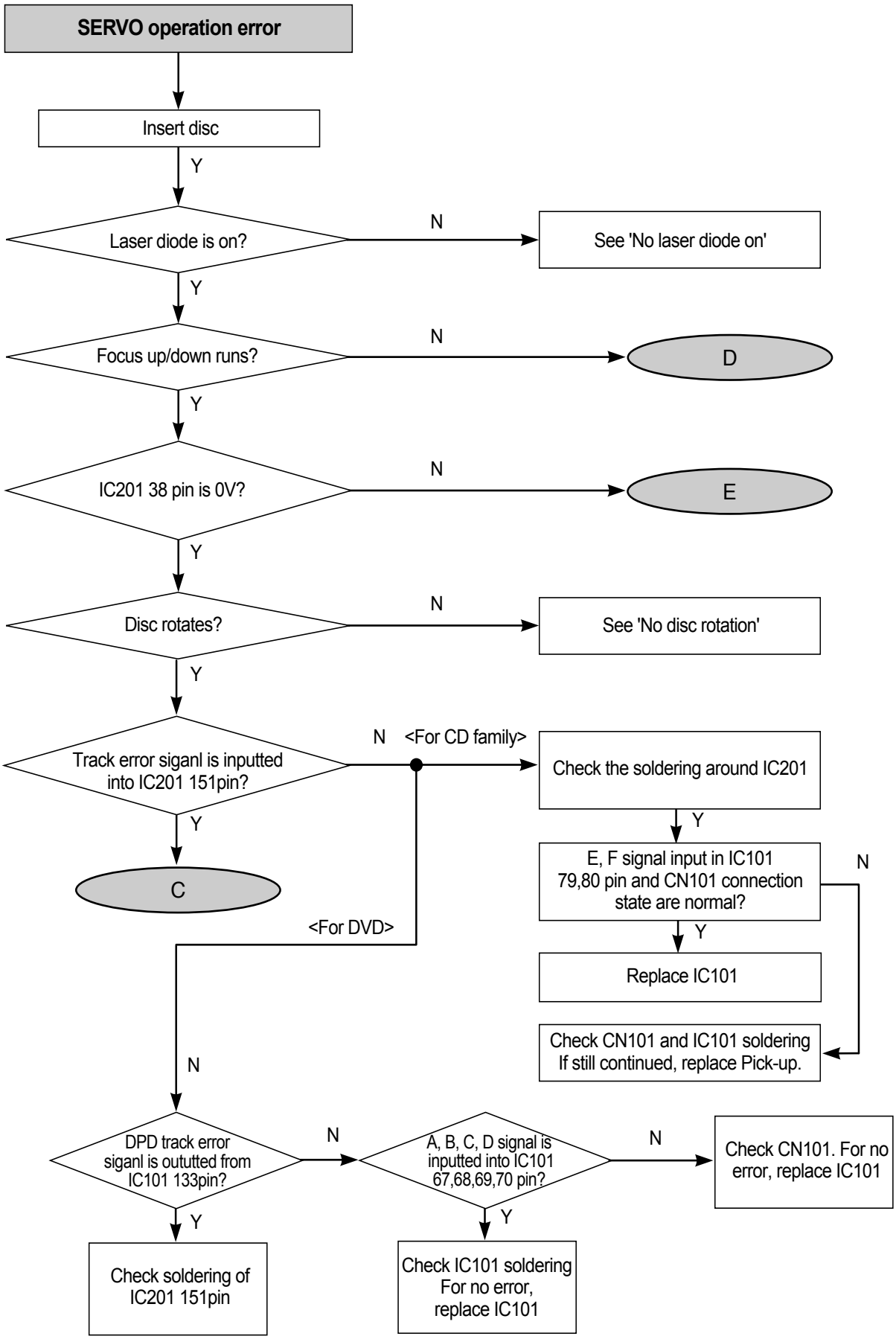


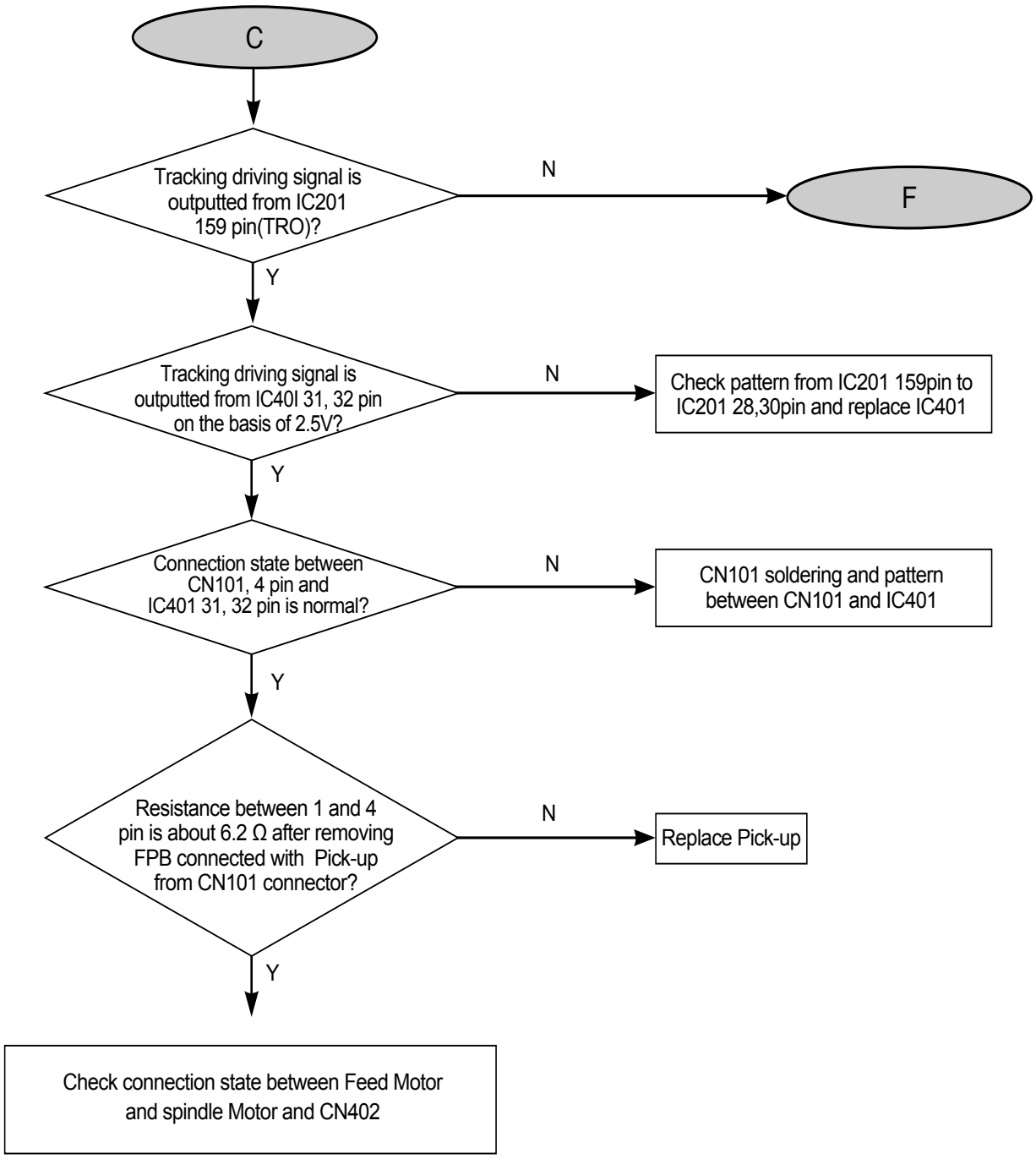
<TE signal at track jump)
(Temporary halt state)

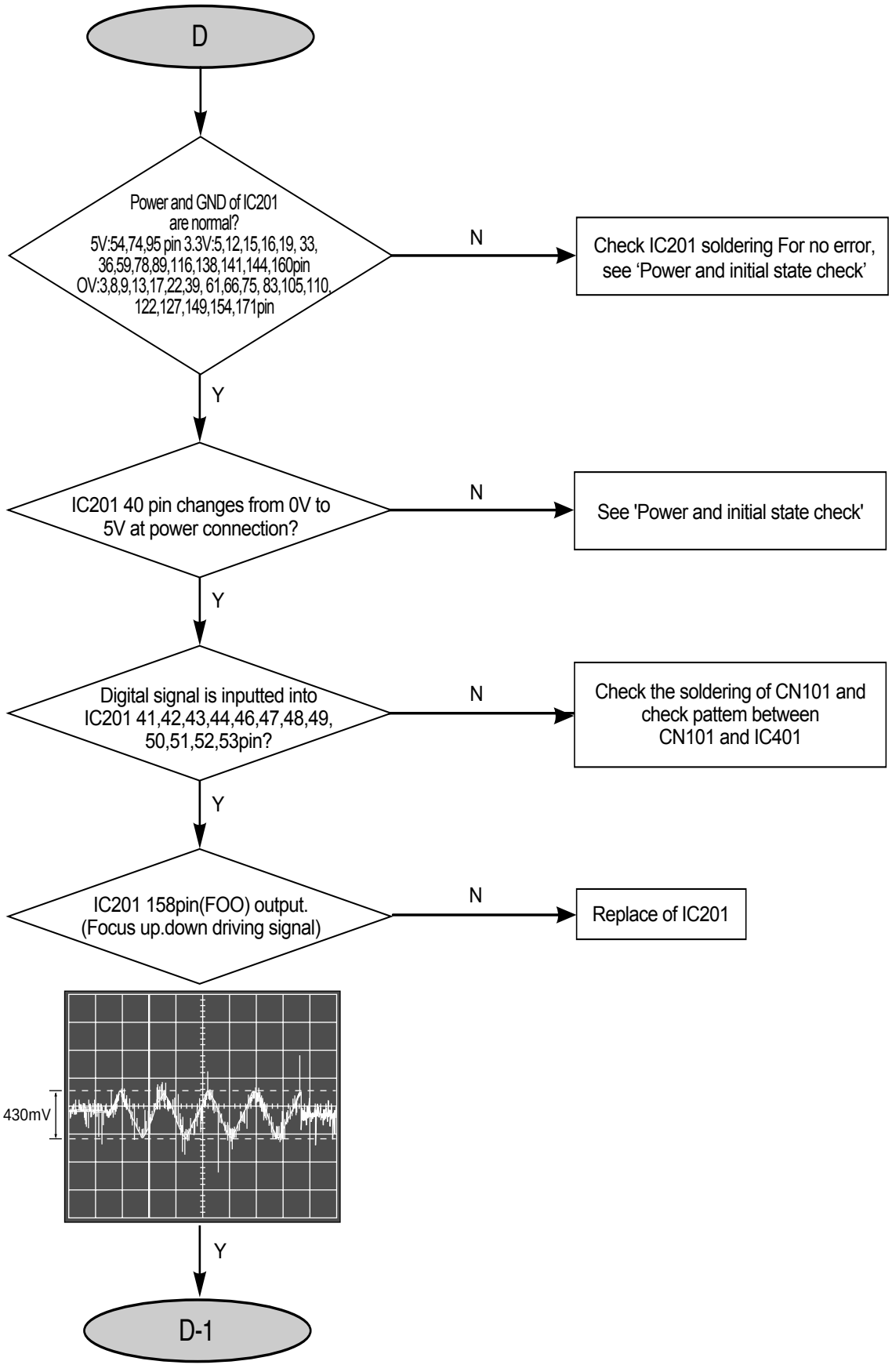

No tray open/close
Pin between SW701 and R311 0V at pressing SW701?
N
Check the slodering of SW701
Y
0V signal is inputted into IC301 41 pin at pressing SW701?
N
Check pattern disconnection from R311 to IC301 41pin
Y
0V, 5V switching signal of SW702 1pin is inputted into IC301 39pin?
N
Check the slodering of SW702 and pattern
Y
0V, 5V switching signal of SW702 3pin is inputted into IC301 40pin?
N
Check the slodering of SW702 and pattern
Y
Approx. ±2V DC voltage come from IC401 14,15pin on the basis of 2.1V at pressing Open/Close key?
N
Check the soldering of R405, R410, R409,R404,R427and If still not operated, replace IC401
Y
Connection between IC401 14,15pin and SW702 and loading motor is normal?
N
Check the pattern, power of short and wire disconnection state
Y
Open/close runs normally.

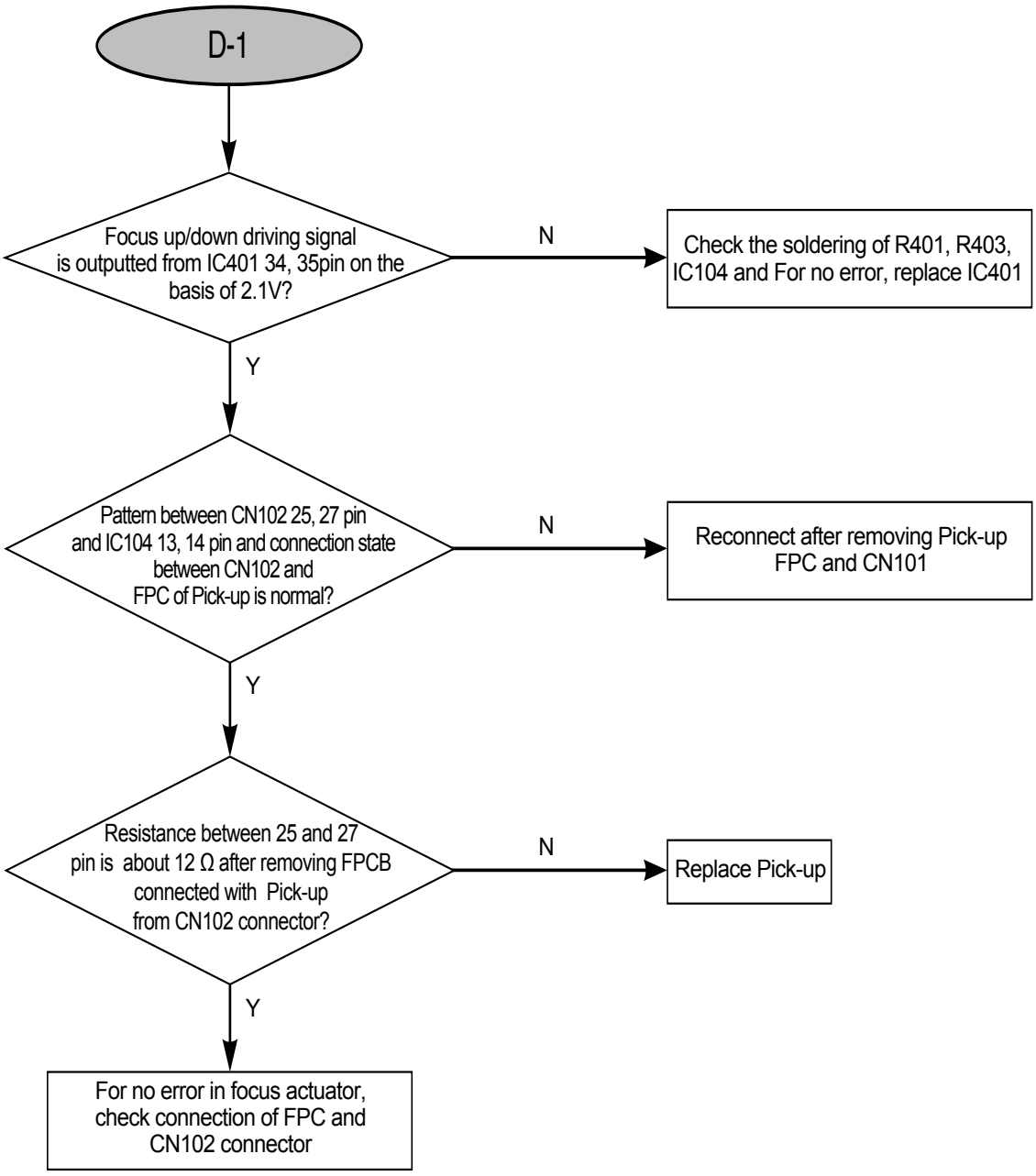

No laser diode on
Y
Focus up/down runs?
N
Check power and initial state
<For DVD>
Y
<For CD family>
B
Power and GND terminal of IC101 are normal? (5V : 21,27,46,52,65,71pin OV:1,55,66,76 pin)
N
Check power and GND pattem
Y
IC101 60pin is about 2.9 V?
N
Check the soldering of R106
Voltage difference of R103 is approx. 800mV?
N
Check the soldering of R103,Q101,L102
Y
IC101 59 pin voltage is approx. 20mV?
N
Check the soldering of CN101
Y
Replace Pick-up.

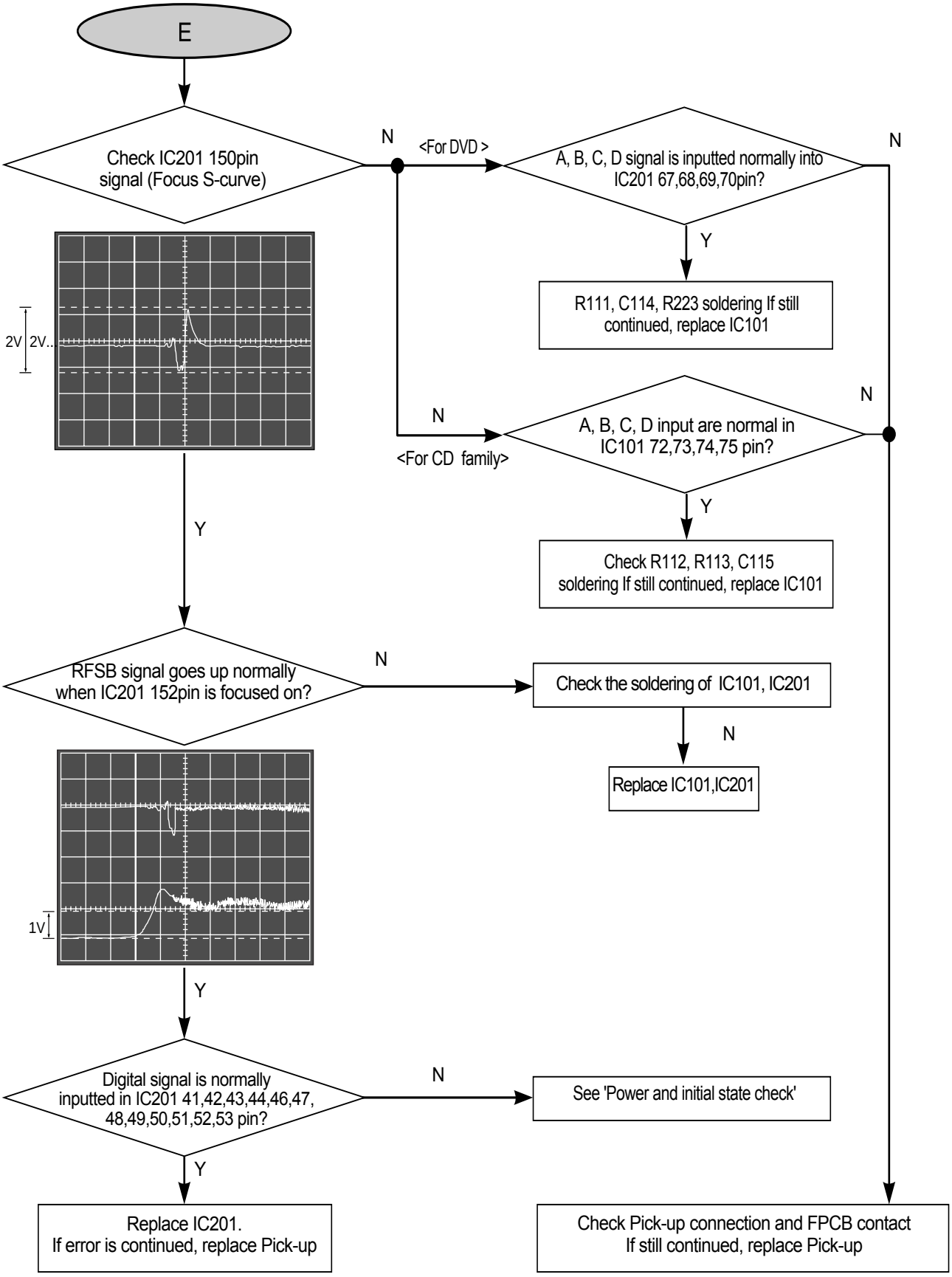

B
Power and GND terminal IC101 are normal?
N
Check power pattern connection
Y
IC101 3pin is about 2.8 V?
N
Check the soldering of R115
Y
Voltage difference between both stages of R116 is approx. 800mV?
N
Check the soldering of R116, Q102, L103
Y
IC101 3 pin voltage is approx. 20mV?
N
Check the soldering of R101
Y
Replace Pick-up.

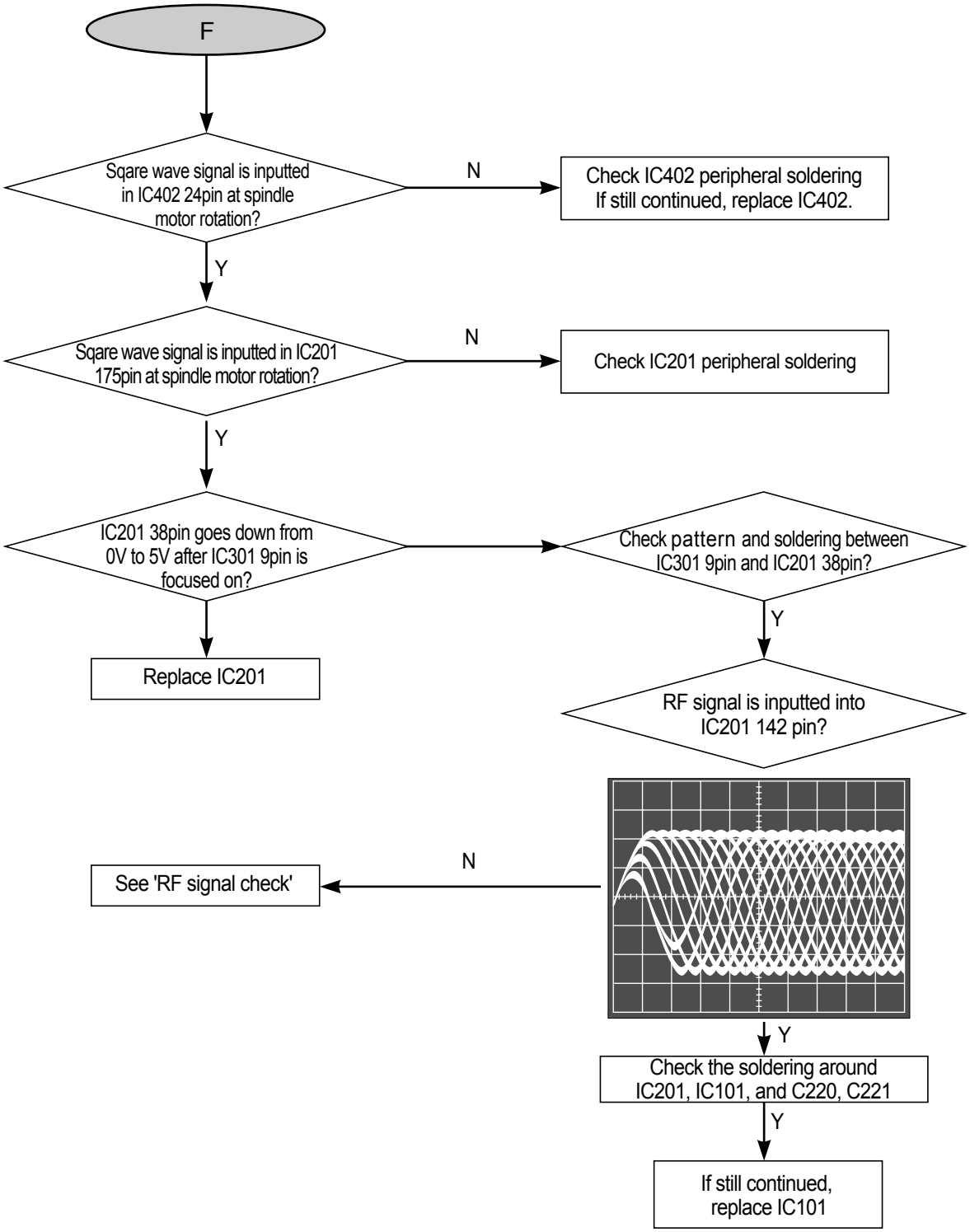

SERVO operation error
Insert disc
Y
Laser diode is on?
N
See 'No laser diode on'
Y
Focus up/down runs?
N
D
Y
IC201 38 pin is 0V?
N
E
Y
Disc rotates?
N
See 'No disc rotation'
Y
Track error siganl is inputted into IC201 151pin?
N
<For CD family>
Check the soldering around IC201
Y
E, F signal input in IC101 79,80 pin and CN101 connection state are normal?
N
Y
Replace IC101
Check CN101 and IC101 soldering If still continued, replace Pick-up.
Y
C
<For DVD>
N
DPD track error siganl is oututted from IC101 133pin?
N
A, B, C, D signal is inputted into IC101 67,68,69,70 pin?
N
Check CN101. For no error, replace IC101
Y
Y
Check soldering of IC201 151pin
Check IC101 soldering For no error, replace IC101

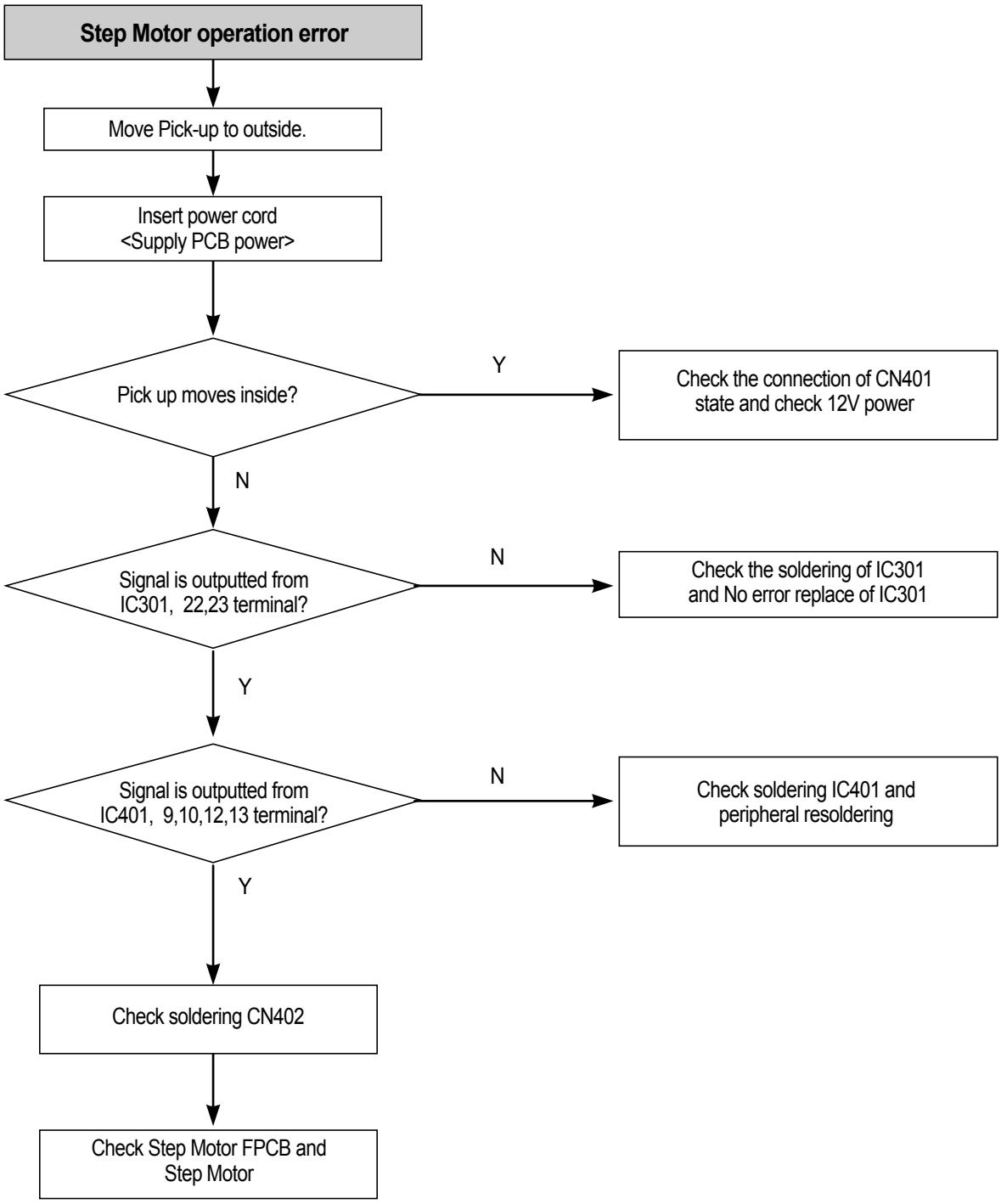

C
Tracking driving signal is outputted from IC201 159 pin(TRO)?
N
F
Y
Tracking driving signal is outputted from IC40I 31, 32 pin on the basis of 2.5V?
N
Check pattern from IC201 159pin to IC201 28,30pin and replace IC401
Y
Connection state between CN101, 4 pin and IC401 31, 32 pin is normal?
N
CN101 soldering and pattern between CN101 and IC401
Y
Resistance between 1 and 4 pin is about 6.2 Ω after removing FPB connected with Pick-up from CN101 connector?
N
Replace Pick-up
Y
Check connection state between Feed Motor and spindle Motor and CN402

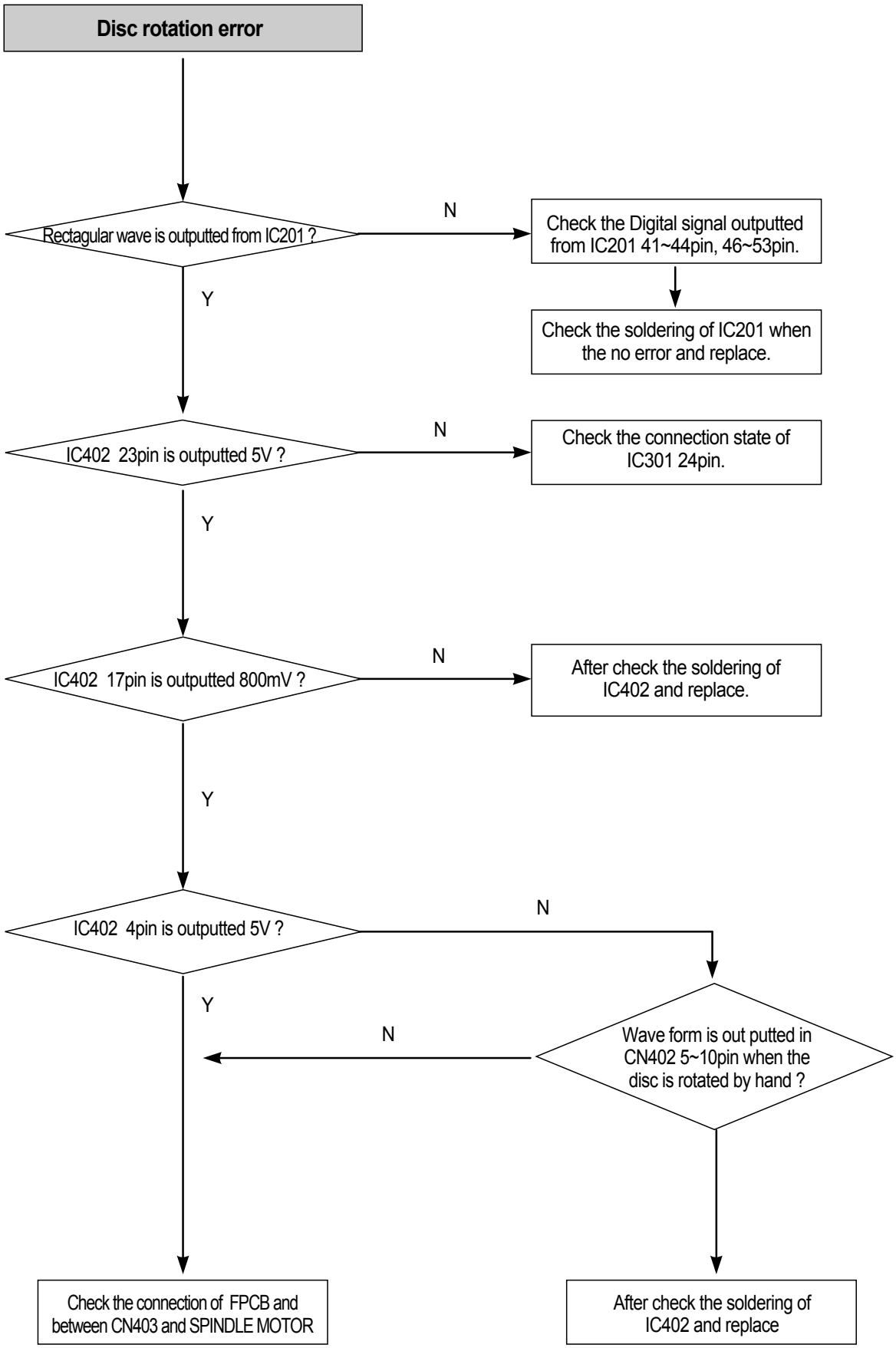

D
Power and GND of IC201 are normal? 5V:54,74,95 pin 3.3V:5,12,15,16,19, 33, 36,59,78,89,116,138,141,144,160pin OV:3,8,9,13,17,22,39, 61,66,75, 83,105,110, 122,127,149,154,171pin
N
Check IC201 soldering For no error, see 'Power and initial state check'
Y
IC201 40 pin changes from 0V to 5V at power connection?
N
See 'Power and initial state check'
Y
Digital signal is inputted into IC201 41,42,43,44,46,47,48,49, 50,51,52,53pin?
N
Check the soldering of CN101 and check pattem between CN101 and IC401
Y
IC201 158pin(FOO) output. (Focus up.down driving signal)
N
Replace of IC201
430mV
Y
D-1

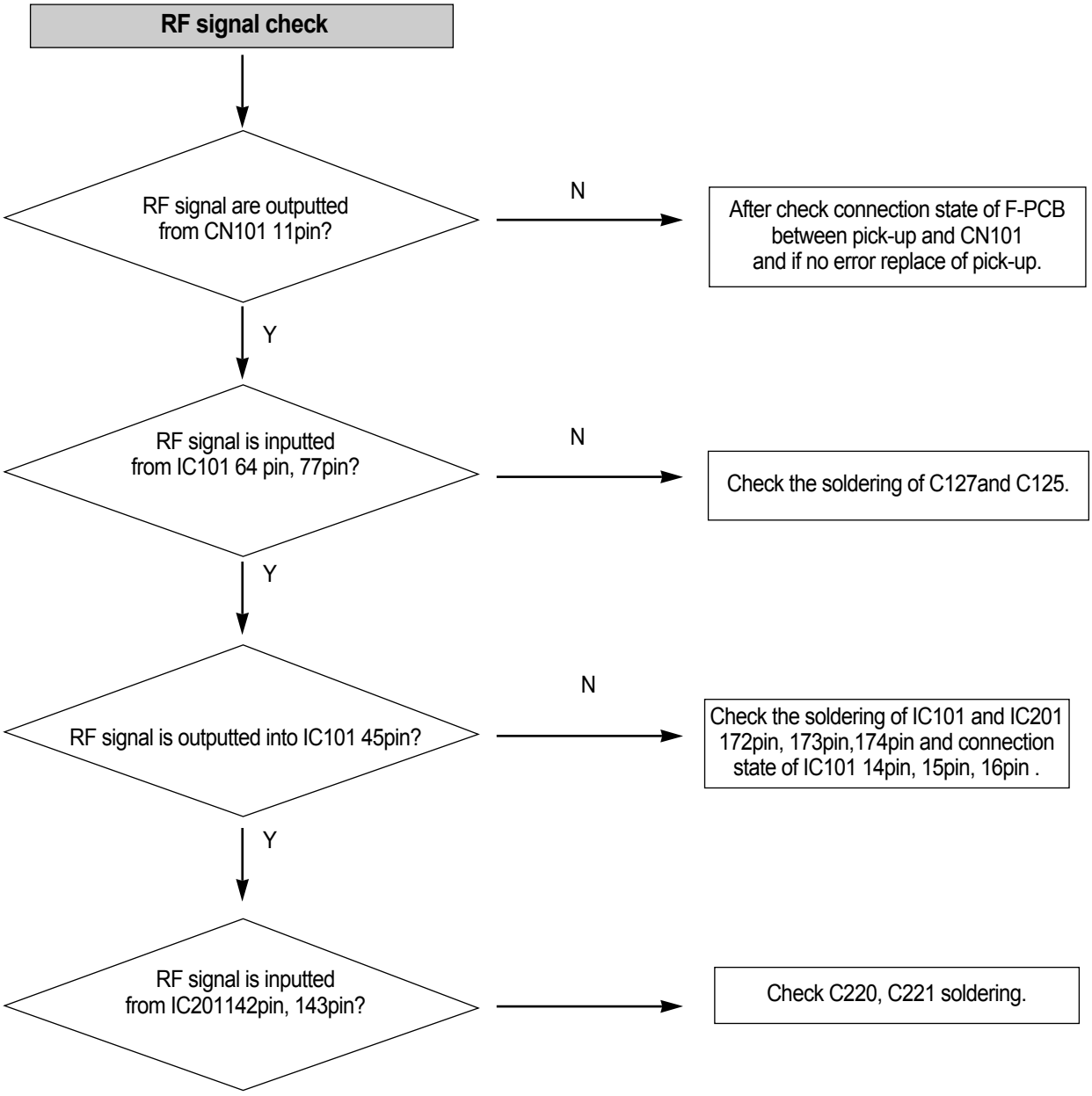

D-1
Focus up/down driving signal is outputted from IC401 34, 35pin on the basis of 2.1V?
N
Check the soldering of R401, R403, IC104 and For no error, replace IC401
Y
Pattern between CN102 25, 27 pin and IC104 13, 14 pin and connection state between CN102 and FPC of Pick-up is normal?
N
Reconnect after removing Pick-up FPC and CN101
Y
Resistance between 25 and 27 pin is about 12 Ω after removing FPCB connected with Pick-up from CN102 connector?
N
Replace Pick-up
Y
For no error in focus actuator, check connection of FPC and CN102 connector

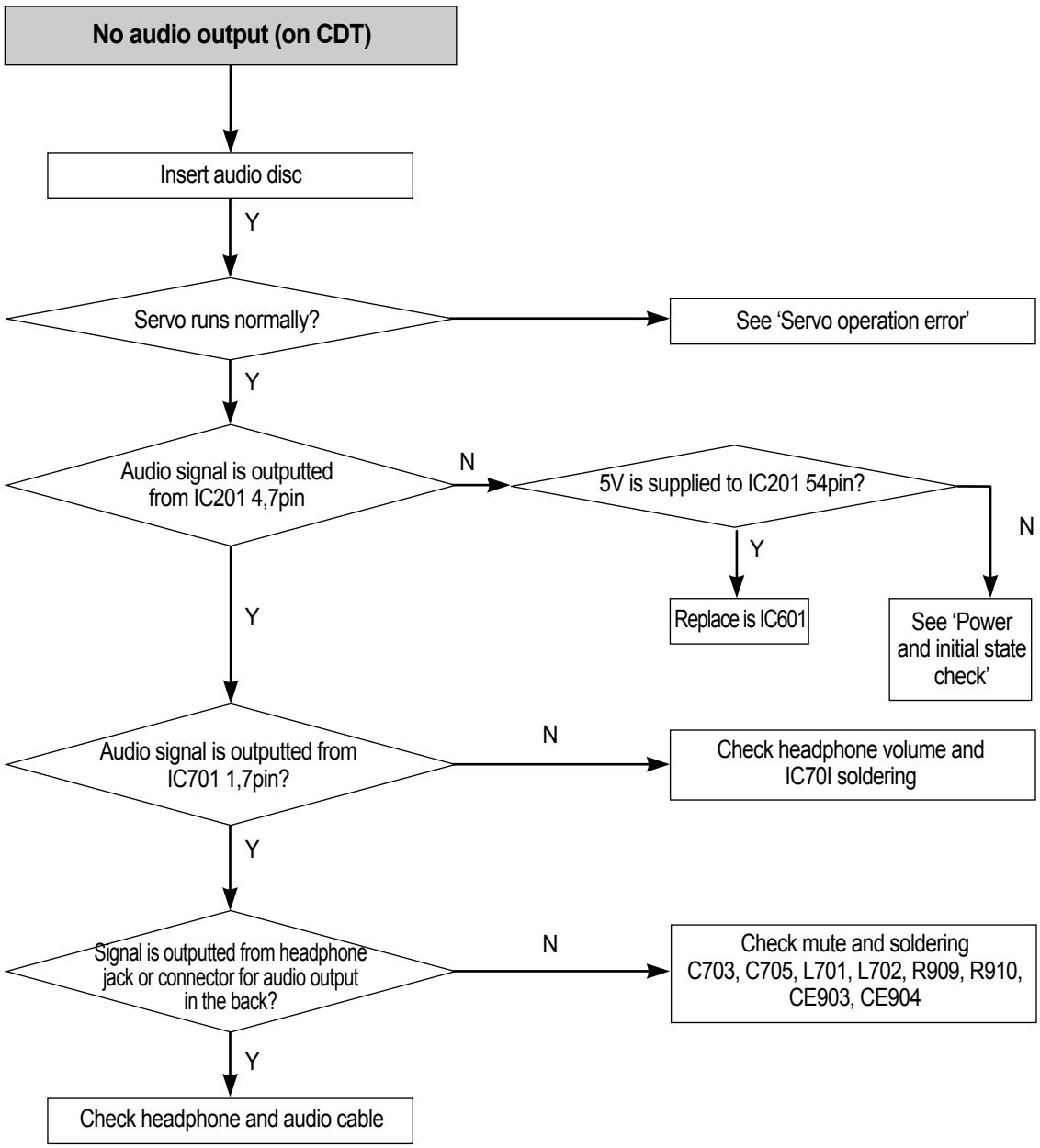

E
Check IC201 150pin signal (Focus S-curve)
N
<For DVD >
A, B, C, D signal is inputted normally into IC201 67,68,69,70pin?
N
Y
R111, C114, R223 soldering If still continued, replace IC101
2V
2V..
N
<For CD family>
A, B, C, D input are normal in IC101 72,73,74,75 pin?
N
Y
Check R112, R113, C115 soldering If still continued, replace IC101
Y
RFSB signal goes up normally when IC201 152pin is focused on?
N
Check the soldering of IC101, IC201
N
Replace IC101,IC201
1V
Y
Digital signal is normally inputted in IC201 41,42,43,44,46,47, 48,49,50,51,52,53 pin?
N
See 'Power and initial state check'
Y
Replace IC201. If error is continued, replace Pick-up
Check Pick-up connection and FPCB contact If still continued, replace Pick-up

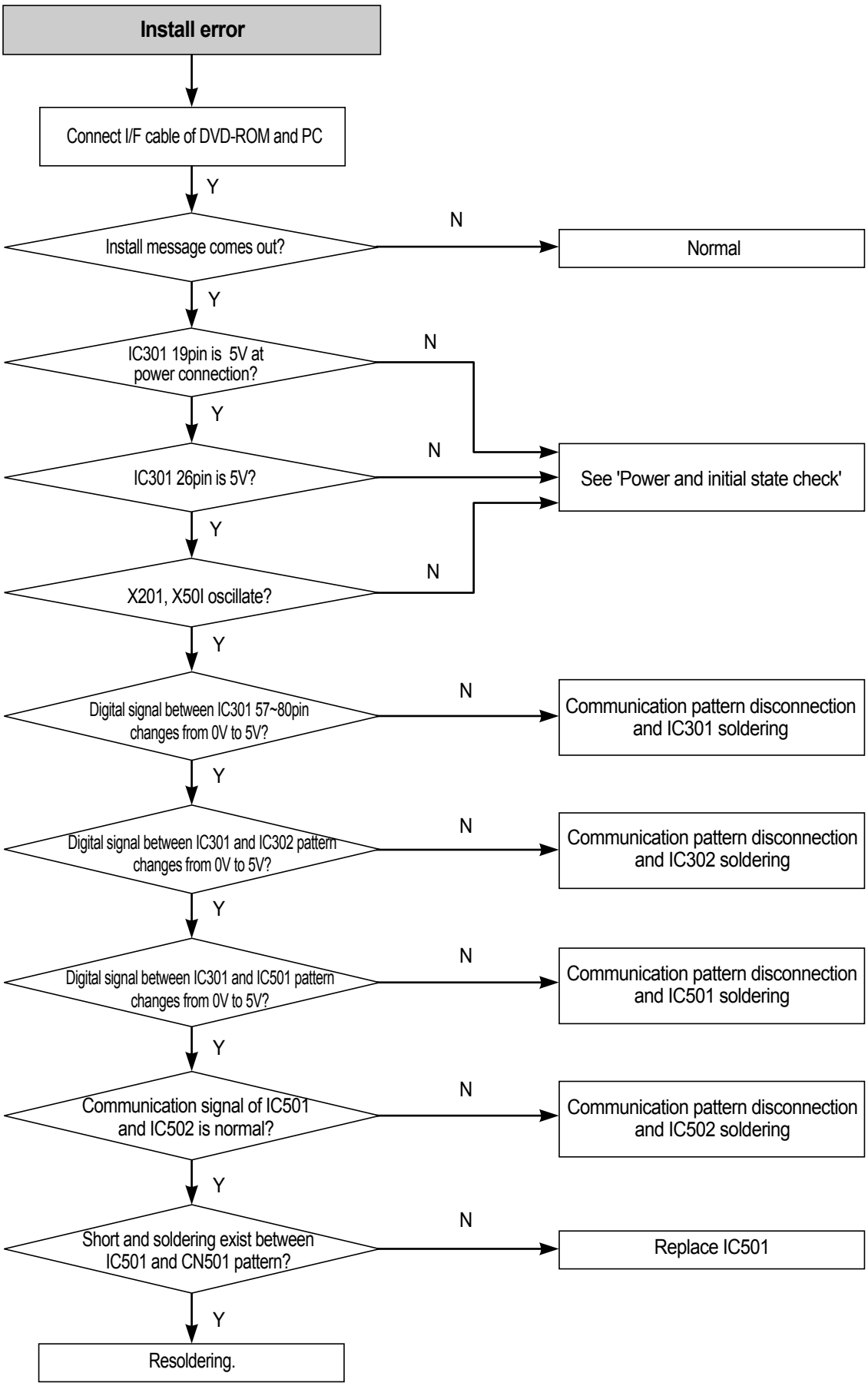

F
Sqare wave signal is inputted in IC402 24pin at spindle motor rotation?
N
Check IC402 peripheral soldering If still continued, replace IC402.
Y
Sqare wave signal is inputted in IC201 175pin at spindle motor rotation?
N
Check IC201 peripheral soldering
Y
IC201 38pin goes down from 0V to 5V after IC301 9pin is focused on?
Check pattern and soldering between IC301 9pin and IC201 38pin?
Y
Replace IC201
RF signal is inputted into IC201 142 pin?
N
See 'RF signal check'
Y
Check the soldering around IC201, IC101, and C220, C221
Y
If still continued, replace IC101


Step Motor operation error
Move Pick-up to outside.
Insert power cord
<Supply PCB power>
Pick up moves inside?
Y
Check the connection of CN401
state and check 12V power
N
Signal is outputted from
IC301, 22,23 terminal?
N
Check the soldering of IC301
and No error replace of IC301
Y
Signal is outputted from
IC401, 9,10,12,13 terminal?
N
Check soldering IC401 and
peripheral resoldering
Y
Check soldering CN402
Check Step Motor FPCB and
Step Motor


Disc rotation error
Rectagular wave is outputted from IC201 ?
N
Check the Digital signal outputted from IC201 41~44pin, 46~53pin.
Check the soldering of IC201 when the no error and replace.
Y
IC402 23pin is outputted 5V ?
N
Check the connection state of IC301 24pin.
Y
IC402 17pin is outputted 800mV ?
N
After check the soldering of IC402 and replace.
Y
IC402 4pin is outputted 5V ?
N
Y
Wave form is out putted in CN402 5~10pin when the disc is rotated by hand ?
N
Check the connection of FPCB and between CN403 and SPINDLE MOTOR
After check the soldering of IC402 and replace


RF signal check
RF signal are outputted from CN101 11pin?
N
After check connection state of F-PCB between pick-up and CN101 and if no error replace of pick-up.
Y
RF signal is inputted from IC101 64 pin, 77pin?
N
Check the soldering of C127and C125.
Y
RF signal is outputted into IC101 45pin?
N
Check the soldering of IC101 and IC201 172pin, 173pin,174pin and connection state of IC101 14pin, 15pin, 16pin .
Y
RF signal is inputted from IC201142pin, 143pin?
Check C220, C221 soldering.


No audio output (on CDT)
Insert audio disc
Y
Servo runs normally?
See 'Servo operation error'
Y
Audio signal is outputted from IC201 4,7pin
N
5V is supplied to IC201 54pin?
N
Y
Replace is IC601
See 'Power and initial state check'
Y
Audio signal is outputted from IC701 1,7pin?
N
Check headphone volume and IC70I soldering
Y
Signal is outputted from headphone jack or connector for audio output in the back?
N
Check mute and soldering C703, C705, L701, L702, R909, R910, CE903, CE904
Y
Check headphone and audio cable

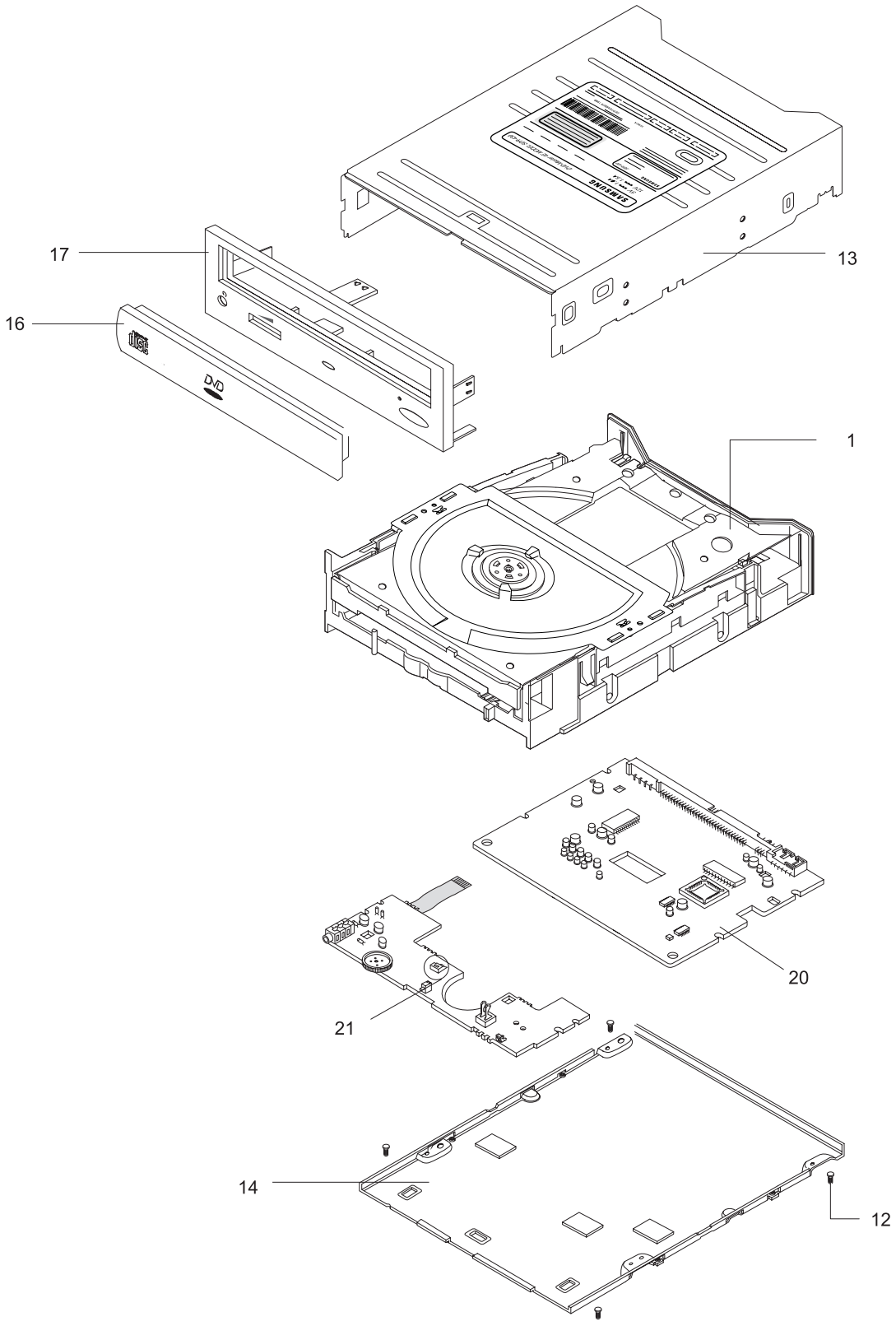

Install error
Connect I/F cable of DVD-ROM and PC
Y
Install message comes out?
N
Normal
Y
IC301 19pin is 5V at power connection?
N
Y
IC301 26pin is 5V?
N
See 'Power and initial state check'
Y
X201, X50I oscillate?
N
Y
Digital signal between IC301 57~80pin changes from 0V to 5V?
N
Communication pattern disconnection and IC301 soldering
Y
Digital signal between IC301 and IC302 pattern changes from 0V to 5V?
N
Communication pattern disconnection and IC302 soldering
Y
Digital signal between IC301 and IC501 pattern changes from 0V to 5V?
N
Communication pattern disconnection and IC501 soldering
Y
Communication signal of IC501 and IC502 is normal?
N
Communication pattern disconnection and IC502 soldering
Y
Short and soldering exist between IC501 and CN501 pattern?
N
Replace IC501
Y
Resoldering.

6. Exploded views and parts list

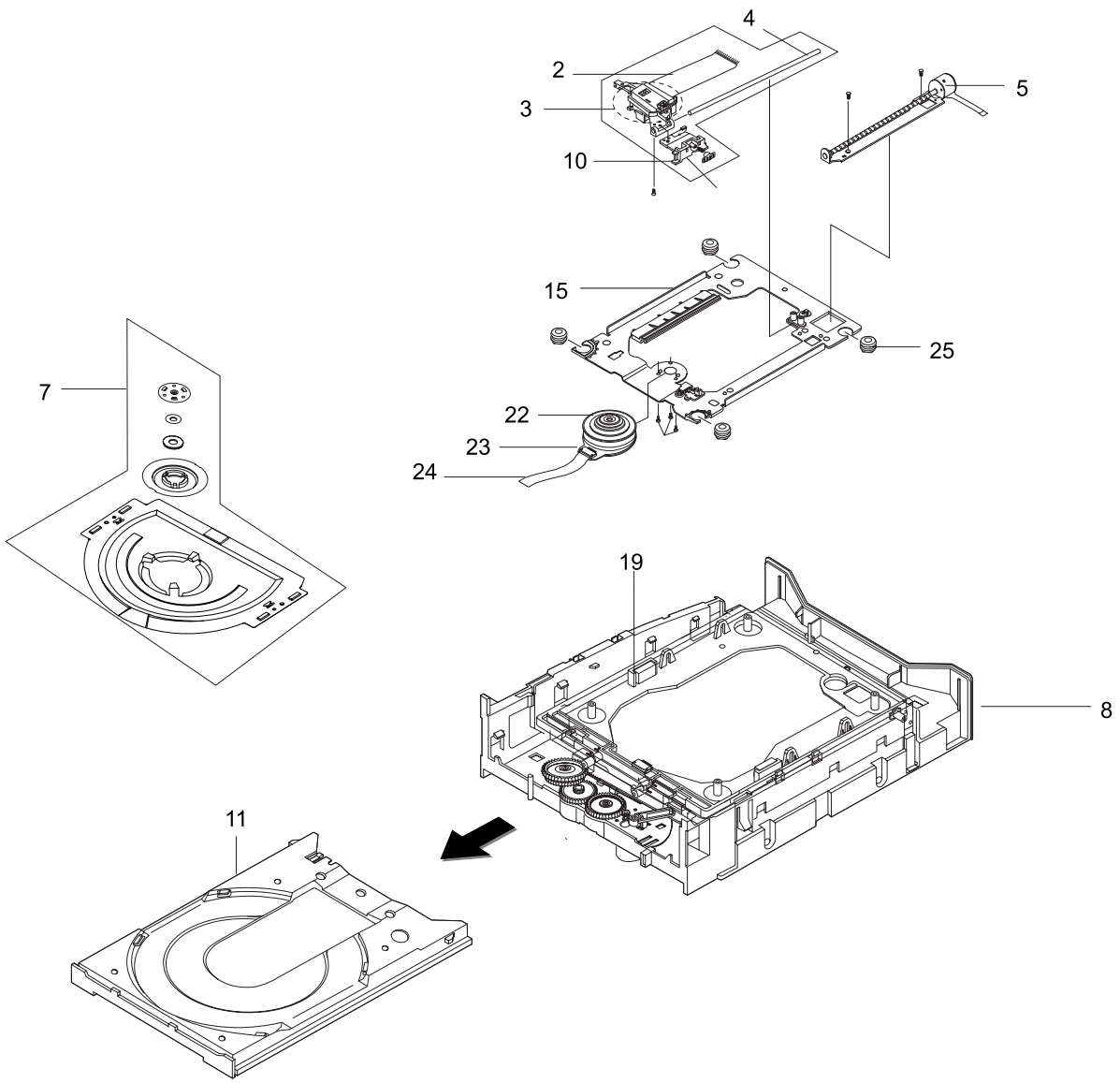
6-1 Entire exploded view 6-1

6-2 Deck exploded view 6-2

6-1 Entire exploded view



6-2 Deck exploded view



7. Circuit parts list

Part List 7-1

CIRCUIT PART LIST

LOCATION NO	CODE NO	PART NAME	QT'Y
	BG97-00291A	ASSY-COMMON;SD-608B,DOM	1
	BG60-10027A	SCREW;-,-,-,-,TAP 2.6,L8,-,SWP,SCR-2	4
	BG63-00011A	COVER-TOP;-,SECC,-,T0.6,-,-,COVER TOP	1
	BG68-50005A	LABEL-QMS;ALL MODEL,VELLUM 2S,T0.1,L65,W	1
	BG92-00036A	ASSY-PCB;SD-608B/DOM,SD-608B	1
	BG99-40002N	ASSY-PCB,c;SD-608B/DOM,SD-608B	1
	0202-001086	SOLDER-WIRE.;S63-R20,-,360X20x8,63SN/37P	0.849
	0202-001087	SOLDER-WIRE FLUX;KR19,S60A,D1.2,63SN/37P	0.095
	0204-000203	ISOPROPYL ALCOHOL;-,C2H50H,99%,-	0.383
	0204-001103	FLUX;SV95-1F,-,99.937,-	0.361
D101	0401-000008	DIODE-SWITCHING;DAN217,80V,100mA,SOT-23,	1
D102	0401-000008	DIODE-SWITCHING;DAN217,80V,100mA,SOT-23,	1
D201	0401-000008	DIODE-SWITCHING;DAN217,80V,100mA,SOT-23,	1
Q903	0501-000150	TR-SMALL SIGNAL;2SA1037,PNP,200MW,SOT-23	1
Q101	0501-000251	TR-SMALL SIGNAL;BC807,PNP,310mW,SOT-23,T	1
Q102	0501-000251	TR-SMALL SIGNAL;BC807,PNP,310mW,SOT-23,T	1
Q901	0501-000534	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SOT-2	1
Q902	0501-000534	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SOT-2	1
IC110	0801-001177	IC-CMOS LOGIC;74HC4053,SELECTOR/MULTIPLE	1
IC303	0801-002143	IC-CMOS LOGIC;7S32,OR GATE,SOT-25,5P,63M	1
IC310	0801-002353	IC-CMOS LOGIC;74VHCT00,NAND GATE,SOP,14P	1
IC298	0801-002414	IC-CMOS LOGIC;7W53,MULTI/DEMULTIPLEXER,S	1
IC480	0801-002414	IC-CMOS LOGIC;7W53,MULTI/DEMULTIPLEXER,S	1
IC401	1003-001221	IC-MOTOR DRIVER;M56788FP,SSOP,42P,450MIL	1
IC402	1003-001253	IC-MOTOR DRIVER;BA6664FM,SOP,28P,300MIL,	1
IC203	1105-001246	IC-DRAM;V53C16258HK25,256KX16BIT, SOJ,40	1
IC502	1105-001246	IC-DRAM;V53C16258HK25,256KX16BIT, SOJ,40	1
IC460	1201-000003	IC-AMPLIFIER;3414A,SOP,8P,DUAL,OP_AMP,CM	1
IC111	1201-000003	IC-AMPLIFIER;3414A,SOP,8P,DUAL,OP_AMP,CM	1
IC305	1203-001394	IC-VOL. DETECTOR;9735,SOT-23,3P,-,PLASTI	1
IC802	1203-001473	IC-VOLTAGE REGULATOR;00AS,-,5P,-,PLASTIC	1

CIRCUIT PART LIST

LOCATION NO	CODE NO	PART NAME	QT'Y
IC801	1203-001500	IC-VOLTAGE REGULATOR;20WZ5U,SOP,5,-,PLAS	1
R415	2007-000036	R-CHIP;2OHM,5%,1/8W,DA,TP,3216	1
R417	2007-000036	R-CHIP;2OHM,5%,1/8W,DA,TP,3216	1
R414	2007-000036	R-CHIP;2OHM,5%,1/8W,DA,TP,3216	1
R416	2007-000036	R-CHIP;2OHM,5%,1/8W,DA,TP,3216	1
R231	2007-000043	R-CHIP;1Kohm,1%,1/16W,DA,TP,1608	1
R232	2007-000043	R-CHIP;1Kohm,1%,1/16W,DA,TP,1608	1
R229	2007-000066	R-CHIP;20Kohm,1%,1/16W,DA,TP,1608	1
R409	2007-000067	R-CHIP;15Kohm,1%,1/16W,DA,TP,1608	1
R109	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R112	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R138	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R191	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R193	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R299	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R304	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R305	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R315	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R365	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R366	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R380	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R451	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R507	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R150	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R180	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R203	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R209A	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R233	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R238	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R307	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R360	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1

CIRCUIT PART LIST

LOCATION NO	CODE NO	PART NAME	QT'Y
R400	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R427	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R444	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R452	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R481	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R483	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R484	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R485	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R506	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R509	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R534	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R537	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R539	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R544	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R555	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R915	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R916	2007-000070	R-CHIP;0ohm,5%,1/16W,DA,TP,1608	1
R531	2007-000071	R-CHIP;22ohm,5%,1/16W,DA,TP,1608	1
R536	2007-000071	R-CHIP;22ohm,5%,1/16W,DA,TP,1608	1
R501	2007-000071	R-CHIP;22ohm,5%,1/16W,DA,TP,1608	1
R502	2007-000071	R-CHIP;22ohm,5%,1/16W,DA,TP,1608	1
R503	2007-000071	R-CHIP;22ohm,5%,1/16W,DA,TP,1608	1
R504	2007-000071	R-CHIP;22ohm,5%,1/16W,DA,TP,1608	1
R505	2007-000071	R-CHIP;22ohm,5%,1/16W,DA,TP,1608	1
R515	2007-000072	R-CHIP;47ohm,5%,1/16W,DA,TP,1608	1
R516	2007-000072	R-CHIP;47ohm,5%,1/16W,DA,TP,1608	1
R521	2007-000072	R-CHIP;47ohm,5%,1/16W,DA,TP,1608	1
R522	2007-000072	R-CHIP;47ohm,5%,1/16W,DA,TP,1608	1
R547	2007-000072	R-CHIP;47ohm,5%,1/16W,DA,TP,1608	1
R102	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	1
R223	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	1

CIRCUIT PART LIST

LOCATION NO	CODE NO	PART NAME	QT'Y
R548	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	1
R114	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	1
R101	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608	1
R411	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608	1
R413	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608	1
R330	2007-000077	R-CHIP;470ohm,5%,1/16W,DA,TP,1608	1
SR10	2007-000077	R-CHIP;470ohm,5%,1/16W,DA,TP,1608	1
R316	2007-000077	R-CHIP;470ohm,5%,1/16W,DA,TP,1608	1
SR11	2007-000077	R-CHIP;470ohm,5%,1/16W,DA,TP,1608	1
SR12	2007-000077	R-CHIP;470ohm,5%,1/16W,DA,TP,1608	1
SR13	2007-000077	R-CHIP;470ohm,5%,1/16W,DA,TP,1608	1
SR9	2007-000077	R-CHIP;470ohm,5%,1/16W,DA,TP,1608	1
R113	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	1
R151A	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	1
R219	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	1
R220	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	1
R320	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	1
R404	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	1
R909	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	1
R910	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	1
R106	2007-000081	R-CHIP;2.7Kohm,5%,1/16W,DA,TP,1608	1
R115	2007-000081	R-CHIP;2.7Kohm,5%,1/16W,DA,TP,1608	1
R168	2007-000082	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1608	1
R217	2007-000082	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1608	1
R244	2007-000082	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1608	1
R211	2007-000082	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1608	1
R204	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	1
R205	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	1
R297	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	1
R314	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	1
R911	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	1

CIRCUIT PART LIST

LOCATION NO	CODE NO	PART NAME	QT'Y
R912	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	1
R939	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	1
R228	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	1
R309	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	1
R310	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	1
R321	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	1
R323	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	1
R381	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	1
R382	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	1
R383	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	1
R227	2007-000086	R-CHIP;5.6Kohm,5%,1/16W,DA,TP,1608	1
R804	2007-000087	R-CHIP;6.8Kohm,5%,1/16W,DA,TP,1608	1
R556	2007-000087	R-CHIP;6.8Kohm,5%,1/16W,DA,TP,1608	1
R592A	2007-000087	R-CHIP;6.8Kohm,5%,1/16W,DA,TP,1608	1
R593	2007-000087	R-CHIP;6.8Kohm,5%,1/16W,DA,TP,1608	1
R593A	2007-000087	R-CHIP;6.8Kohm,5%,1/16W,DA,TP,1608	1
R596	2007-000087	R-CHIP;6.8Kohm,5%,1/16W,DA,TP,1608	1
R596A	2007-000087	R-CHIP;6.8Kohm,5%,1/16W,DA,TP,1608	1
R597	2007-000087	R-CHIP;6.8Kohm,5%,1/16W,DA,TP,1608	1
R597A	2007-000087	R-CHIP;6.8Kohm,5%,1/16W,DA,TP,1608	1
R166	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	1
R175	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	1
R237	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	1
R239	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	1
R351	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	1
R352	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	1
R570	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	1
R571	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	1
R573	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	1
R574	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	1
R575	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	1

CIRCUIT PART LIST

LOCATION NO	CODE NO	PART NAME	QT'Y
R576	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	1
R913	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	1
R914	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	1
R111	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	1
R169	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	1
R210	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	1
R212	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	1
R213	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	1
R214	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	1
R215	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	1
R216	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	1
R221	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	1
R222	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	1
R311	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	1
R331	2007-000090	R-CHIP;10Kohm,5%,1/16W,DA,TP,1608	1
R302	2007-000092	R-CHIP;15Kohm,5%,1/16W,DA,TP,1608	1
R173	2007-000092	R-CHIP;15Kohm,5%,1/16W,DA,TP,1608	1
R174	2007-000092	R-CHIP;15Kohm,5%,1/16W,DA,TP,1608	1
R207	2007-000094	R-CHIP;22Kohm,5%,1/16W,DA,TP,1608	1
R218	2007-000094	R-CHIP;22Kohm,5%,1/16W,DA,TP,1608	1
R243	2007-000094	R-CHIP;22Kohm,5%,1/16W,DA,TP,1608	1
R224	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608	1
R240	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608	1
R241	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608	1
R201	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608	1
R225	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608	1
R236	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608	1
R313	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608	1
R489	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608	1
R492	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608	1
R545	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608	1

CIRCUIT PART LIST

LOCATION NO	CODE NO	PART NAME	QT'Y
R546	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608	1
R937	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608	1
R938	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608	1
R406	2007-000100	R-CHIP;68Kohm,5%,1/16W,DA,TP,1608	1
R420	2007-000100	R-CHIP;68Kohm,5%,1/16W,DA,TP,1608	1
R425	2007-000100	R-CHIP;68Kohm,5%,1/16W,DA,TP,1608	1
R160	2007-000101	R-CHIP;82Kohm,5%,1/16W,DA,TP,1608	1
R161	2007-000101	R-CHIP;82Kohm,5%,1/16W,DA,TP,1608	1
R162	2007-000101	R-CHIP;82Kohm,5%,1/16W,DA,TP,1608	1
R163	2007-000101	R-CHIP;82Kohm,5%,1/16W,DA,TP,1608	1
R165	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	1
R401	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	1
R402	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	1
R408	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	1
R426	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	1
R167	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	1
R308	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	1
R421	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	1
R917	2007-000105	R-CHIP;200Kohm,5%,1/16W,DA,TP,1608	1
R234	2007-000106	R-CHIP;220Kohm,5%,1/16W,DA,TP,1608	1
R242	2007-000106	R-CHIP;220Kohm,5%,1/16W,DA,TP,1608	1
R461	2007-000106	R-CHIP;220Kohm,5%,1/16W,DA,TP,1608	1
R464	2007-000106	R-CHIP;220Kohm,5%,1/16W,DA,TP,1608	1
R206	2007-000107	R-CHIP;470Kohm,5%,1/16W,DA,TP,1608	1
R208	2007-000109	R-CHIP;1Mohm,5%,1/16W,DA,TP,1608	1
R512	2007-000109	R-CHIP;1Mohm,5%,1/16W,DA,TP,1608	1
R532	2007-000115	R-CHIP;82ohm,5%,1/16W,DA,TP,1608	1
R533	2007-000115	R-CHIP;82ohm,5%,1/16W,DA,TP,1608	1
R535	2007-000115	R-CHIP;82ohm,5%,1/16W,DA,TP,1608	1
R538	2007-000115	R-CHIP;82ohm,5%,1/16W,DA,TP,1608	1
R540	2007-000115	R-CHIP;82ohm,5%,1/16W,DA,TP,1608	1
R541	2007-000115	R-CHIP;82ohm,5%,1/16W,DA,TP,1608	1

CIRCUIT PART LIST

LOCATION NO	CODE NO	PART NAME	QT'Y
R542	2007-000115	R-CHIP;82ohm,5%,1/16W,DA,TP,1608	1
R543	2007-000115	R-CHIP;82ohm,5%,1/16W,DA,TP,1608	1
R801	2007-000120	R-CHIP;680ohm,5%,1/16W,DA,TP,1608	1
R572	2007-000122	R-CHIP;1.2Kohm,5%,1/16W,DA,TP,1608	1
R462	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608	1
R463	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608	1
R488	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608	1
R490	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608	1
R171	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608	1
R805	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608	1
R164	2007-000125	R-CHIP;3.9Kohm,5%,1/16W,DA,TP,1608	1
R403	2007-000130	R-CHIP;39Kohm,5%,1/16W,DA,TP,1608	1
R407	2007-000130	R-CHIP;39Kohm,5%,1/16W,DA,TP,1608	1
R235	2007-000134	R-CHIP;33Kohm,5%,1/16W,DA,TP,1608	1
R460	2007-000134	R-CHIP;33Kohm,5%,1/16W,DA,TP,1608	1
R491	2007-000134	R-CHIP;33Kohm,5%,1/16W,DA,TP,1608	1
R170	2007-000134	R-CHIP;33Kohm,5%,1/16W,DA,TP,1608	1
R209	2007-000134	R-CHIP;33Kohm,5%,1/16W,DA,TP,1608	1
R116	2007-000415	R-CHIP;15OHM,5%,1/10W,DA,TP,2012	1
R103	2007-000415	R-CHIP;15OHM,5%,1/10W,DA,TP,2012	1
R410	2007-000583	R-CHIP;22Kohm,1%,1/16W,DA,TP,1608	1
R301	2007-000616	R-CHIP;24Kohm,5%,1/16W,DA,TP,1608	1
R802	2007-000669	R-CHIP;2Kohm,1%,1/16W,DA,TP,1608	1
R405	2007-000708	R-CHIP;3.9Kohm,1%,1/16W,DA,TP,1608	1
R230	2007-000736	R-CHIP;30Kohm,1%,1/16W,DA,TP,1608	1
R803	2007-007775	R-CHIP;18OHM,5%,1W,DA,TP,6432	1
NR05	2011-000585	R-NETWORK;47ohm,5%,1/16W,L,CHIP,8P,TP	1
NR06	2011-000585	R-NETWORK;47ohm,5%,1/16W,L,CHIP,8P,TP	1
NR07	2011-000585	R-NETWORK;47ohm,5%,1/16W,L,CHIP,8P,TP	1
NR01	2011-000770	R-NETWORK;470ohm,5%,1/16W,L,CHIP,8P,TP	1
NR02	2011-000770	R-NETWORK;470ohm,5%,1/16W,L,CHIP,8P,TP	1

CIRCUIT PART LIST

LOCATION NO	CODE NO	PART NAME	QT'Y
NR03	2011-001254	R-NETWORK;6.8Kohm,5%,1/16W,L,CHIP,8P,TP	1
NR04	2011-001254	R-NETWORK;6.8Kohm,5%,1/16W,L,CHIP,8P,TP	1
VR201	2104-000001	VR-SMD;1KOHM,25%,0.15W,TOP/BOTTOM	1
C230	2203-000041	C-CERAMIC,CHIP;10pF,0.25pF,50V,NPO,TP,16	1
C231	2203-000041	C-CERAMIC,CHIP;10pF,0.25pF,50V,NPO,TP,16	1
C517	2203-000041	C-CERAMIC,CHIP;10pF,0.25pF,50V,NPO,TP,16	1
C110	2203-000140	C-CERAMIC,CHIP;1.5nF,10%,50V,X7R,TP,1608	1
C111	2203-000140	C-CERAMIC,CHIP;1.5nF,10%,50V,X7R,TP,1608	1
C161	2203-000140	C-CERAMIC,CHIP;1.5nF,10%,50V,X7R,TP,1608	1
C101	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C102	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C118	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C124	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C166	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C201	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C202	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C208	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C209	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C210	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C211	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C212	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C214	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C215	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C219	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C234	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C252	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C298	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C299	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C304	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C305	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C402	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1

CIRCUIT PART LIST

LOCATION NO	CODE NO	PART NAME	QT'Y
C407	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C408	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C410	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C411	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C412	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C414	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C415	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C460	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C485	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C503	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C504	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C505	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C506	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C103	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C104	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C108	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C109	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C116	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C119	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C122	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C123	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C125	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C126	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C127	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C138	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C139	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C140	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C164	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C179	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C207A	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C207B	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1

CIRCUIT PART LIST

LOCATION NO	CODE NO	PART NAME	QT'Y
C213	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C218	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C401	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C403	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C409	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C413	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C486	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C507	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C510	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C511	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C802	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C805	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C806	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C917	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	1
C224	2203-000236	C-CERAMIC,CHIP;0.1nF,5%,50V,NPO,TP,1608	1
C515	2203-000236	C-CERAMIC,CHIP;0.1nF,5%,50V,NPO,TP,1608	1
C297	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,	1
C390	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,	1
CE910	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,	1
C107	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,	1
C151	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608,	1
C228	2203-000372	C-CERAMIC,CHIP;15nF,10%,50V,X7R,TP,1608,	1
C235	2203-000372	C-CERAMIC,CHIP;15nF,10%,50V,X7R,TP,1608,	1
C120	2203-000440	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1608,-	1
C121	2203-000440	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1608,-	1
C303	2203-000440	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1608,-	1
C348	2203-000440	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1608,-	1
C204	2203-000440	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1608,-	1
C501	2203-000552	C-CERAMIC,CHIP;20pF,5%,50V,NPO,TP,1608,-	1
C502	2203-000552	C-CERAMIC,CHIP;20pF,5%,50V,NPO,TP,1608,-	1
C205	2203-000626	C-CERAMIC,CHIP;22pF,5%,50V,NPO,TP,1608,-	1

CIRCUIT PART LIST

LOCATION NO	CODE NO	PART NAME	QT'Y
C206	2203-000626	C-CERAMIC,CHIP;22pF,5%,50V,NPO,TP,1608,-	1
C509	2203-000626	C-CERAMIC,CHIP;22pF,5%,50V,NPO,TP,1608,-	1
C216	2203-000715	C-CERAMIC,CHIP;3.3nF,10%,50V,X7R,TP,1608	1
C217	2203-000715	C-CERAMIC,CHIP;3.3nF,10%,50V,X7R,TP,1608	1
C112	2203-000783	C-CERAMIC,CHIP;0.33nF,5%,50V,NPO,TP,1608	1
C114	2203-000783	C-CERAMIC,CHIP;0.33nF,5%,50V,NPO,TP,1608	1
C351	2203-000783	C-CERAMIC,CHIP;0.33nF,5%,50V,NPO,TP,1608	1
C352	2203-000783	C-CERAMIC,CHIP;0.33nF,5%,50V,NPO,TP,1608	1
C225	2203-000925	C-CERAMIC,CHIP;470NF,+80-20%,50V,Y5V,TP,	1
C451	2203-000998	C-CERAMIC,CHIP;0.047nF,5%,50V,NPO,TP,160	1
C220	2203-001052	C-CERAMIC,CHIP;0.56NF,10%,50V,X7R,TP,160	1
C221	2203-001052	C-CERAMIC,CHIP;0.56NF,10%,50V,X7R,TP,160	1
C226	2203-001103	C-CERAMIC,CHIP;6.8nF,10%,50V,X7R,TP,1608	1
C165	2203-001103	C-CERAMIC,CHIP;6.8nF,10%,50V,X7R,TP,1608	1
C301	2203-001195	C-CERAMIC,CHIP;7pF,0.25pF,50V,NPO,TP,160	1
C302	2203-001195	C-CERAMIC,CHIP;7pF,0.25pF,50V,NPO,TP,160	1
C801	2203-001630	C-CERAMIC,CHIP;330nF,+80-20%,16V,Y5V,TP,	1
C508	2203-001636	C-CERAMIC,CHIP;33pF,5%,50V,NPO,TP,1608,1	1
C115	2203-001656	C-CERAMIC,CHIP;0.47nF,5%,50V,NPO,TP,1608	1
C160	2203-002398	C-CERAMIC,CHIP;22nF,10%,50V,X7R,TP,1608,	1
C803	2203-002793	C-CERAMIC,CHIP;1uF,+80-20%,25V,Y5V,TP,20	1
C207	2203-002793	C-CERAMIC,CHIP;1uF,+80-20%,25V,Y5V,TP,20	1
C222	2203-005105	C-CERAMIC,CHIP;680pF,5%,50V,CH,TP,1608,1	1
CE301	2402-000008	C-AL,SMD;47uF,20%,16V,GP,TP,6.6x6.6x5.4	1
CE801	2402-000008	C-AL,SMD;47uF,20%,16V,GP,TP,6.6x6.6x5.4	1
CE802	2402-000008	C-AL,SMD;47uF,20%,16V,GP,TP,6.6x6.6x5.4	1
CE804	2402-000008	C-AL,SMD;47uF,20%,16V,GP,TP,6.6x6.6x5.4	1
CE101	2402-000112	C-AL,SMD;10uF,20%,16V,GP,TP,3.3x3.3x5.4	1
CE103	2402-000112	C-AL,SMD;10uF,20%,16V,GP,TP,3.3x3.3x5.4	1
CE105	2402-000112	C-AL,SMD;10uF,20%,16V,GP,TP,3.3x3.3x5.4	1
CE108	2402-000112	C-AL,SMD;10uF,20%,16V,GP,TP,3.3x3.3x5.4	1

CIRCUIT PART LIST

LOCATION NO	CODE NO	PART NAME	QT'Y
CE141	2402-000112	C-AL,SMD;10uF,20%,16V,GP,TP,3.3x3.3x5.4	1
CE201	2402-000112	C-AL,SMD;10uF,20%,16V,GP,TP,3.3x3.3x5.4	1
CE202	2402-000112	C-AL,SMD;10uF,20%,16V,GP,TP,3.3x3.3x5.4	1
CE203	2402-000112	C-AL,SMD;10uF,20%,16V,GP,TP,3.3x3.3x5.4	1
CE204	2402-000112	C-AL,SMD;10uF,20%,16V,GP,TP,3.3x3.3x5.4	1
CE206	2402-000112	C-AL,SMD;10uF,20%,16V,GP,TP,3.3x3.3x5.4	1
CE903	2402-000112	C-AL,SMD;10uF,20%,16V,GP,TP,3.3x3.3x5.4	1
CE904	2402-000112	C-AL,SMD;10uF,20%,16V,GP,TP,3.3x3.3x5.4	1
CE102	2402-000136	C-AL,SMD;22uF,20%,16V,GP,TP,5.3x5.3x5.2	1
CE106	2402-000136	C-AL,SMD;22uF,20%,16V,GP,TP,5.3x5.3x5.2	1
CE107	2402-000136	C-AL,SMD;22uF,20%,16V,GP,TP,5.3x5.3x5.2	1
CE109	2402-000136	C-AL,SMD;22uF,20%,16V,GP,TP,5.3x5.3x5.2	1
CE205	2402-000136	C-AL,SMD;22uF,20%,16V,GP,TP,5.3x5.3x5.2	1
CE401	2404-000304	C-TA,CHIP;22uF,20%,6.3V,-,TP,3528,-	1
CE402	2404-000304	C-TA,CHIP;22uF,20%,6.3V,-,TP,3528,-	1
CE240	2404-000304	C-TA,CHIP;22uF,20%,6.3V,-,TP,3528,-	1
CE915	2404-000304	C-TA,CHIP;22uF,20%,6.3V,-,TP,3528,-	1
L102	2703-000127	INDUCTOR-SMD;10UH,5%,2.5X3.2X2.2MM	1
L103	2703-000127	INDUCTOR-SMD;10UH,5%,2.5X3.2X2.2MM	1
L101	2703-000127	INDUCTOR-SMD;10UH,5%,2.5X3.2X2.2MM	1
X501	2802-001046	RESONATOR-CERAMIC;50MHz,0.5%,TP,3.7x3.1x	1
X301	2802-001068	RESONATOR-CERAMIC;20MHz,0.5%,TP,3.7x3.1x	1
X201	2802-001119	RESONATOR-CERAMIC;22.579MHZ,0.5%,TP,3.7X	1
B802	3301-001082	CORE-FERRITE BEAD;AB,3.2X2.5X1.3X0.5MM,-	1
B801	3301-001082	CORE-FERRITE BEAD;AB,3.2X2.5X1.3X0.5MM,-	1
B804	3301-001082	CORE-FERRITE BEAD;AB,3.2X2.5X1.3X0.5MM,-	1
IC302	3704-000249	SOCKET-IC;32P,PLCC,SN,1.27mm	1
CN903	3708-001346	CONNECTOR-FPC/FC/PIC;13P,-,SMD-A,SN	1
CN401	3708-001347	CONNECTOR-FPC/FC/PIC;4P,-,SMD-A,SN	1
CN402	3708-001348	CONNECTOR-FPC/FC/PIC;11P,-,SMD-A,SN	1
CN101	3708-001406	CONNECTOR-FPC/FC/PIC;24P,0.5MM,SMD-A,SN	1

CIRCUIT PART LIST

LOCATION NO	CODE NO	PART NAME	QT'Y
IC301	BG09-00004A	IC-MICOM MASKING;KS88C4504/P4504-17,-,-	1
IC101	BG13-00005A	IC-ASIC;-,TA1313F,QFP,80PIN,RF IC(CD/D	1
IC201	BG13-00006A	IC-ASIC;-,TC9489F,QFP,176PIN,SERVO/DSP	1
IC501	BG13-00007A	IC-ASIC;-,TC9492F,QFP,144PIN,ATAPI IC	1
	BG41-00031A	P.C.B-MAIN;SD-608B,2 LAYER,CEM-3,-	0.5
	BG99-90002S	ASSY-PCB,m;SD-608B/DOM,SD-608B	1
	0202-000001	SOLDER-CREAM;RMA2007,-,-,63Sn/37Pb,-	0.004
IC302	1103-001144	IC-EEPROM;29EE512,64KX8BIT,PLCC,32P,-,70	1
CN501	3710-000001	CONNECTOR-SHUNT;2P,1R,2.54mm,-,SN	1
CN501	3711-004271	CONNECTOR-HEADER;BOX,56P,2R,2.54MM/5.08M	1
	BG68-50023A	LABEL-ROM;-,ART PAPER,T0.1,L8.8,W8.8,WHT	1
	BG97-00073A	ASSY COVER BOTTOM;SD-604F,-,ASSY COVER	1
	BG63-00005A	COVER-BOTTOM;-,SECC 0.6T,-,-,NTR,-,-,DDR	1
	BG73-00004A	RUBBER-IC;GET PAD V0,13 * 20,D4/A/B/C,RU	1
	BG73-10113A	RUBBER-IC;SILICON,W20XL13XT1.5,DDR-4,-	2
	BG97-00343A	ASSY-DECK;SD-608B,-,ASS'Y DECK	1
	AC60-10059A	SCREW-TAPPING;BH,+,-,1.7,X5,ZPC2	2
	AH61-50278A	SHAFT-P.U(R);DP,SUS420J2,OD3,L87,-,NTR,D	1
	BG31-00001A	MOTOR-STEP;-,-,-,-	1
	BG41-00022A	FPC-PICK-UP;POLYESTER,0.09,24P,SC-140B	1
	BG60-00011A	SCREW MACHINE;SD-608B,-,-,-,-,-,-,-,-,-	1
	BG66-00002A	TRAY DISC;-,PC/ABS,-,IVORY,-,DDR-4	1
	BG92-00054A	ASSY-PCB-FRONT;SD-608B/DOM,-	1
	0202-001086	SOLDER-WIRE.;S63-R20,-,360X20x8,63SN/37P	0.849
	0202-001087	SOLDER-WIRE FLUX;KR19,S60A,D1.2,63SN/37P	0.381
	0204-000203	ISOPROPYL ALCOHOL;-,C2H50H,99%,-	0.9
	0204-001103	FLUX;SV95-1F,-,99.937,-	0.85
D702	0601-001332	LED;CBI,GRN,2.9mm,567nm	1
IC701	1201-001497	IC-AUDIO AMP;3541,DIP,8P,300MIL,DUAL,0DB	1
R702	2001-000273	R-CARBON;100KOHM,5%,1/8W,AA,TP,1.8X3.2M	1
R701	2001-000273	R-CARBON;100KOHM,5%,1/8W,AA,TP,1.8X3.2M	1
R703	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM	1

CIRCUIT PART LIST

LOCATION NO	CODE NO	PART NAME	QT'Y
R705	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM	1
R706	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM	1
R704	2001-000745	R-CARBON;4.7OHM,5%,1/8W,AA,TP,1.8X3.2MM	1
VR701	2101-001053	VR-ROTARY;20KOHM,30%,0.03W,TOP	1
C706	2401-000213	C-AL;100nF,20%,50V,GP,TP,3x5,2.5	1
C707	2401-000213	C-AL;100nF,20%,50V,GP,TP,3x5,2.5	1
C711	2401-000213	C-AL;100nF,20%,50V,GP,TP,3x5,2.5	1
C710	2401-000213	C-AL;100nF,20%,50V,GP,TP,3x5,2.5	1
C709	2401-000213	C-AL;100nF,20%,50V,GP,TP,3x5,2.5	1
C704	2401-000249	C-AL;100uF,20%,10V,GP,TP,6.3x5,2.5	1
C703	2401-000249	C-AL;100uF,20%,10V,GP,TP,6.3x5,2.5	1
C701	2401-001246	C-AL;4.7uF,20%,25V,WT,TP,3.5x5mm,2.	1
C702	2401-001246	C-AL;4.7uF,20%,25V,WT,TP,3.5x5mm,2.	1
C708	2401-001476	C-AL;47uF,20%,10V,GP,TP,6.3x5mm,2.5	1
C705	2401-001476	C-AL;47uF,20%,10V,GP,TP,6.3x5mm,2.5	1
L702	3301-001331	CORE-FERRITE BEAD;AC,60OHM,3.5X5X1MM,300	1
L701	3301-001331	CORE-FERRITE BEAD;AC,60OHM,3.5X5X1MM,300	1
SW701	3404-001030	SWITCH-TACT;12V,50MA,100¡≤30GF,7.1X7.0X1	1
JK701	3722-001338	JACK-DC POWER;6P/3C,3.6mm,SN,BLK,NO	1
W701	3811-000389	WIRE-NO SHEATH CU;SPCW,300V,52.4mm,1/0.5	1
SW702	AH34-22001B	SWITCH-PUSH LEVER;DC5V,-,100,5.7mm,40g,2	1
CN701	BG41-00004A	FPC;FFC-FRONT,0.3,13P,SD-604F	1
	BG41-00041A	PCB-FRONT;SD-608B/DEL,-,FRONT PCB,-,-,-,	0.2
	BG97-00017A	ASSY-LOADING;D4,.,ASSY-LOADING	1
	AC60-10027A	SCREW-MACHINE;BH,+,-,M1.7,3,FZB,SWRCH 18	2
	AH60-10143U	SCREW-TAP TITE;DP,PH,+,SPEC,TAP1.7,L5,ZP	1
	AH60-10145A	SCREW-TAP TITE;DP,PH,+,SPEC OD5.5 FP,TAP	1
	BG31-10002B	MOTOR-DC;2.0V-10V DC	1
	BG60-42003A	RING-SPRING;-,POM(M90-44),-,-,-,-	1
	BG61-00011A	FRAME-MAIN;-,ABS,-,-,-,-,-,BLK,-,DDR-4	1
	BG61-60038A	SPRING-LEVER;-,-,SUS304 WPB,-,-,-,DDR-4	1

CIRCUIT PART LIST

LOCATION NO	CODE NO	PART NAME	QT'Y
	BG66-00003A	SLIDER-CAM;-,PBT,-,-,WHT,DDR-4	1
	BG66-00004A	GEAR-TRAY;-,POM(M90-44),-,-,-,-,DDR-4	1
	BG66-20139A	GEAR-MOTOR;-,POM(M90-44),-,-,-,-,DDR-4	1
	BG66-20140A	GEAR-A;-,NYLON12 PA(L-1724K),-,-,-,-,	1
	BG66-20141A	GEAR-B;-,POM(M90-44),-,-,-,-,DDR-4	1
	BG66-20143A	GEAR-D;-,PEBAX 7033 SN01,-,-,-,-,DDR-	1
	BG66-30017A	LEVER-SWITCH;-,POM,-,-,-,DDR-4	1
	BG97-00019A	ASSY-SLIDER STEP;D4A,.,ASSY-SLIDER STEP	1
	BG61-00007A	HOLDER-SLIDER;-,PC(G20%),-,BLK,-,DDR-4	1
	BG61-00025A	SPRING-STEP;-,-,SUS304WPB,4.5,0.32,SPRIN	1
	BG61-40008A	STUD-STEP;-,SUS303,-,-,-,-,DDR-4	1
	BG66-00006A	SLIDER-STEP;-,POM(NW-02),-,-,WHT,D4A	1
	BG97-00305A	ASSY-ARS CHUCK;SC-148F,-,ASS'Y ARS CHUCK	1
	BG33-30001D	MAGNET-CLAMPER;-,-,-,-,13.5x6x1.1	1
	BG61-00018A	BRACKET-MAGNET;-,SECC,-,T1,-,-,SC-140B/	1
	BG61-00036A	BRACKET-CHUCK;-,SECC,-,0.8T,-,BRKT-CHUCK	1
	BG61-00039A	BRACKET-L HIMERON;-,ºÎÁ÷Æ÷,-,-,BLACK,HIM	1
	BG61-00040A	BRACKET-R HIMERON;-,ºÎÁ÷Æ÷,-,1.5T,BLACK,	1
	BG66-00001A	CLAMPER-LOWER;KEPITAL F20-03,-,WHT,-,DD	1
	BG66-90013A	CLAMPER-UPPER;POM,-,-,-,DDR-4	1
	BG69-00012A	PAD-DECK;SD-604F,PORON,-,-,-,BLACK,LE-20	1
	BG97-00328A	ASSY-PICK-UP;SD-608B,-,SOH-D8	1
	0201-000169	ADHESIVE-CYA;ARCN-A501F,NTR	0.01
	0201-001151	ADHESIVE-AA;ARON ALPHA 801F,TRP,10CPS,-	0.01
	0201-001175	ADHESIVE-AA;#7452,TRP,0.4MPA.S,GRAM	0.015
	0202-001165	SOLDER-WIRE FLUX;GUMMIX-19,-,D0.8,SN60/P	0.7
	3302-001102	MAGNET-FERRO FLUID;-,100G,-,-,-	1
	BG02-00002A	BOND-UV;8803G8C,28000+-3000CP	0.04
	BG63-30033A	COVER-ACT;-,SUS430,-,T0.3,WHT,-,-,SOH-D4	1
	BG97-00327A	ASSY-P/UP;SD-608B,-,SOH-D8	1
	BG97-00329A	ASSY-OPT;SD-608B,-,SOH-D8	1

CIRCUIT PART LIST

LOCATION NO	CODE NO	PART NAME	QT'Y
	0202-000001	SOLDER-CREAM;RMA2007,-,-,63Sn/37Pb,-	1.18
	0202-000157	SOLDER-WIRE FLUX;RS60S,RS60S,D0.65,60SN/	0.1
	0603-001042	PHOTO-RECEIVER;6V,-,15MA,780NM,ST	1
	2104-001062	VR-SMD;4.7KOHM,25%,0.05W,TOP	2
	2203-005065	C-CERAMIC,CHIP;1uF,+80-20%,10V,Y5V,TP,16	4
	3708-001303	CONNECTOR-FPC/FC/PIC;24P,0.5mm,SMD-S,SN	1
	BG41-00033A	FPC-MAIN;POLYMIDE,T0.2,24P,SOH-D8	1
	BG41-10090A	PCB-METAL;SOH-D4,1L,SPCC,13 X 10	1
	BG97-00331A	ASSY-H/PCB;SD-608B,-,SOH-D8	1
	0202-000157	SOLDER-WIRE FLUX;RS60S,RS60S,D0.65,60SN/	0.05
	2203-005065	C-CERAMIC,CHIP;1uF,+80-20%,10V,Y5V,TP,16	1
	3301-001209	CORE-FERRITE BEAD;AB,3.2x1.6x0.8mm,-,-	1
	4709-001014	RF-MOLULE;350MHz,DVD,SMD	1
	BG41-10089A	PCB-SUB;SOH-D4,2,GLASS EPOXY,16.5*9.7	1
	BG97-00332A	ASSY-ACT;SD-608B,-,SOH-D8	1
	0201-000173	ADHESIVE-UV;K-123,NTR	0.01
	0201-001045	ADHESIVE-UV;SDM-20,WHITE,36000cP,SILICON	0.1
	0202-000155	SOLDER-WIRE FLUX;KR19-RMA S60A,S60A,D0.8	0.7
	AH60-10143C	SCREW-MACHINE;-,PH,+,FP,M1.7,7,CBLACK,SW	2
	AH61-20443A	HOLDER-WIRE;-,PPS,Vo,BLK,-,SOHRH	1
	AH61-20444A	HOLDER-PLATE;-,SPCC(T0.8),-,WHT,-,SOHRH	1
	BG38-00004A	WIRE-BE COPPER;-,D0.13	4.5
	BG67-10318A	LENS-OL;-,-,PLASTIC,T2.25,5.8,-,SOH-D4	1
	BG97-00333A	ASSY-BLADE;SD-608B,-,SOH-D8	1
	0201-000171	ADHESIVE-AA;EP-1500,AMBER	1
	0202-000157	SOLDER-WIRE FLUX;RS60S,RS60S,D0.65,60SN/	0.1
	AH27-92001A	COIL-FOCUSING;-,50UH,-,-,SQUARE	1
	AH27-92001F	COIL-TRACKING;-,20UH,0.085,-,SQUARE	1
	BG61-00012A	BLADE-PCB;-,EPOXY,-,5.3X4.4,SOH-D4	2
	BG61-20034A	HOLDER-BLADE;-,VECTRA(B130),-,WHITE,-,SO	1
	BG97-00342A	ASSY-FEEDING;SD-608B,-,ASS'Y FEEDING	1

CIRCUIT PART LIST

LOCATION NO	CODE NO	PART NAME	QT'Y
	0201-000165	ADHESIVE-UV;326LVUV,AMBER	0.02
	0201-001044	ADHESIVE-UV;No8803HI,WHT,22000 cP,-	0.04
	0201-001081	ADHESIVE-AA;1401C,RED,-,BOND-LOCK SCREW	0.02
	0602-001019	DIODE-LASER;7mW,2V,650nm,TR	1
	AH67-10154A	LENS-MIRROR(D5);-,-,BK-7,T2.5,7.0X7.6,-,	1
	BG02-00002A	BOND-UV;8803G8C,28000+-3000CP	0.028
	BG33-00002A	MAGNET-RARE EARRTH;AF,-,-,-,6X6X2,-,-	2
	BG60-00001A	SCREW-FPCB;-,-,PH,+,M1.7,3.0,BLK	2
	BG60-12001P	SCREW-MACHINE;-,-,-,-,M1.7,2.5,-,-,WHT	1
	BG60-12001T	SCREW-YOKE L;-,SWRCH18A,-,-,-,-,-,-,-	4
	BG61-00016A	SPRING-PLATE;-,-,PBS,-,-,-,SOH-D4	1
	BG61-00021A	PLATE-L/G;,SPTE,T0.5,-,SOH-D4	1
	BG61-00024A	PLATE-PD;-,SPTE,T0.5,-,SOH-D4	1
	BG61-00042A	HOLDER-YOKE L;-,SPCC,-,-,-,SD-608B	1
	BG61-00043A	HOLDER-YOKE R;-,SPCC,-,-,-,SD-608B	1
	BG66-00013A	CLAMPER-PLATE;SUS 0.2T,-,-,-,SOH-D4	1
	BG67-10317A	LENS-CL;-,-,PLASTIC,T1.7,6.6,-,SOH-D4	1
	BG67-10319A	LENS-P/BS;-,-,B-270,T1.7,5.5X3.5,-,SOH-D	1
	BG67-10320A	LENS-C/BS;-,-,BK-7,T4,5X5,-,SOH-D4	1
	BG67-10321A	LENS-CONCAVE;-,-,ZEONEX,T1.0,5.8X2.0,-,S	1
	BG95-50043A	ASSY-BASE;SOH-D4,-,-	1
	AH66-72001A	BEARING-METAL;-,ID3,OD4,Cu-Sn,-,SOH-D5(A	2
	BG61-20033A	BASE-P/UP;-,ALDC,-,GRY,-,SOH-D4	1
	BG95-50054A	ASSY-H/LG;SOH-D4,-,-	1
	0201-000165	ADHESIVE-UV;326LVUV,AMBER	0.01
	0201-001044	ADHESIVE-UV;No8803HI,WHT,22000 cP,-	0.01
	0602-001023	DIODE-LASER;10mW,2V,785nm,TR	1
	BG61-00022A	HOLDER-L/G;-,PPS,-,-,INSERT(SPTE 0.5T),S	1
	BG67-10322A	LENS-GT;-,-,B-270,T1.0,3.5X3.0,-,SOH-D4	1
	BG97-00330A	ASSY-FPCB;SD-608B,-,SOH-D8	1
	0201-000180	ADHESIVE-UV;PDS-326UV,BLU	0.03

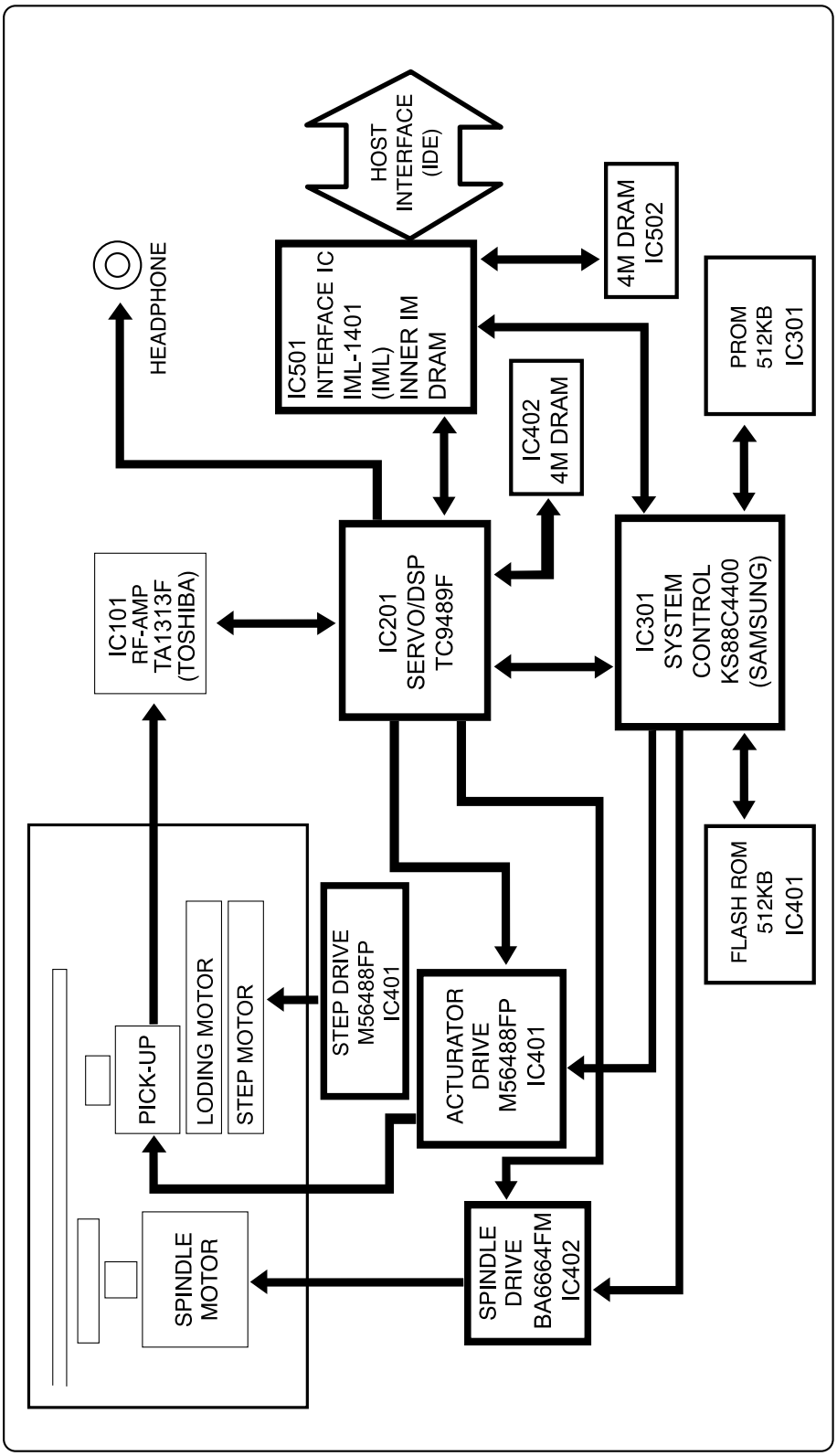
CIRCUIT PART LIST

LOCATION NO	CODE NO	PART NAME	QT'Y
	AC60-10059A	SCREW-TAPPING;BH,+,-,1.7,X5,ZPC2	2
	AH61-50278A	SHAFT-P.U(R);DP,SUS420J2,OD3,L87,-,NTR,D	1
	BG31-00006A	MOTOR-SPINDLE;-,BML5E6CR,-,-	1
	BG41-00006A	FPC-FFC SP MOTOR;POLYESTER,T0.1,11P,SD-6	1
	BG60-00009A	SCREW-TAPPING;-,HV 200-400,HV 450-750,-	4
	BG60-10020A	SCREW-SP MOTOR;-,BHW TOOTH,-,-,M1.7,L3,-	3
	BG61-00001A	CHASSIS-SUB;-,PC+ABS,-,-,BLK,PC+ABS GF2	1
	BG61-00003A	BASE-MAIN(M);-,POM,-,BLK,DVD(D4A),RW(D4	1
	BG61-20031A	HOLDER-CAM;-,POM,-,-,-,DDR-4	1
	BG69-00012A	PAD-DECK;SD-604F,PORON,-,-,-,BLACK,LE-20	2
	BG73-00001A	RUBBER-INSULATOR;-,-,SD-604F,ST	4
	BG97-00340A	ASSY-TURN TABLE;SD-608B,AL,ASS'Y TURN TA	1
	BG59-00001A	UNIT-TURN TABLE-ABS;-,SD-608B,SD-608B	1
	BG61-00018A	BRACKET-MAGNET;-,SECC,-,T1,-,-,SC-140B/	1
	BG63-32002A	COVER-TURN TABLE ABS;-,SUS,-,T0.7,-,-,-	1
	BG70-10316A	BALL-TURN TABLE ABS;-,NITRONIC 50,3.175,	7
	BG73-10114A	RUBBER-TURN TABLE;CR,16,DDR-4,-	1
	BG97-00292A	ASSY-OPTION;SD-608B/DOM,DOM	1
	BG64-00008A	DOOR-TRAY;-,ABS,-,-,-,WHT GRY,C7096,DDR-	1
	BG68-00003A	LABEL-BARCODE;-,MOJO 2S,-,-,-,WHT,DOMEST	0.1
	BG68-50081A	LABEL-BUYER;ROM DOM,100ART,-,L20,W20,BLK	0.1
	BG69-00057A	PACKING CASE;SD-608B/DOM,-,-,-,-,-,PACKI	1
	BG69-20327A	CUSHION-SET;SCR-3231/DOM,EPS,-,-,-,-,-	2
	BG69-30305A	BAG-PE;SCR-3231,LDPE,0.05,L260,W290,-	1
	BG69-40044A	MASTER CARTON-BOX;SDR-430/DOM,SW-3,W418,	0.1
	BG97-00024A	ASSY-PANEL FRONT;D4A,D4B,D4C,.,ASSY PANE	1
	BG64-00010A	PANEL-FRONT;-,ABS,-,-,WHT GRY,-,DDR-4	1
	BG64-10350A	KNOB-EJECT;-,ABS V0,-,-,-,DDR-4	1
	BG67-00002A	LENS-LED;-,-,ACRYL MILKY,-,-,HI855M 001	1
	BG97-00294A	ASSY-ACCESSORY;SD-608B/DOM,DOM	1
	BG39-30002A	CABLE-IF;-,SR,380mm,HIF3BA-40DA-2.54R	1

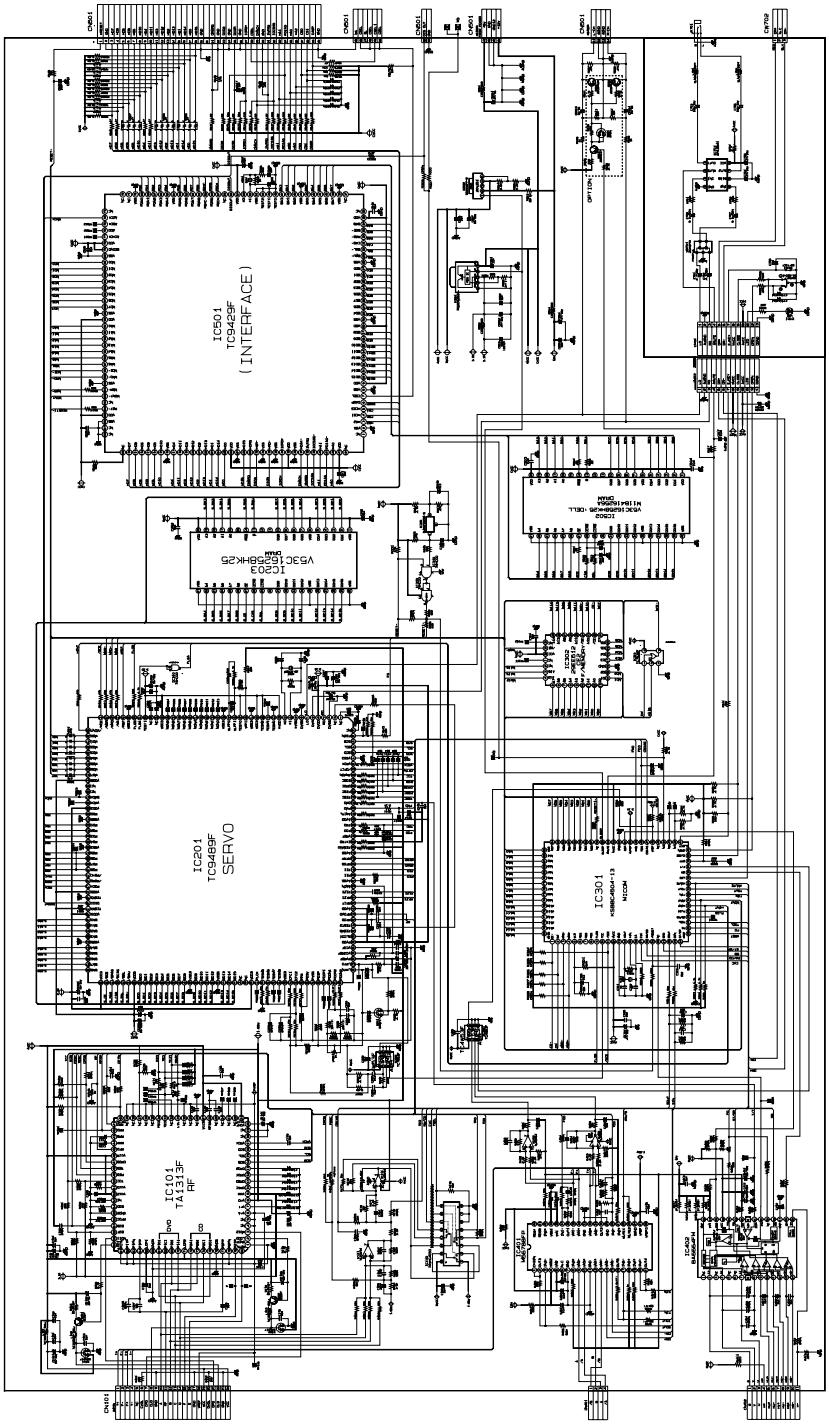
CIRCUIT PART LIST

LOCATION NO	CODE NO	PART NAME	QT'Y
	BG39-42001A	CABLE-WIRE HARNESS;4P,3P,N,UL2547/UL1061	1
	BG46-30001J	DISC-FLOPPY;3.5INCH,-,SCR-2030	1
	BG69-30307A	BAG-PE;SCR-3231,LDPE ANTI,T0.05,L240,	1
	BG95-50004A	ASSY-SCREW;SCR-2430,-,ASS'Y SCREW	1
	BG60-12001H	SCREW-MACHINE;-,PH,-,-,M3,L6,ZPC(WHT),SW	4
	BG69-00026A	BAG-PE-SCREW 4;DOMESTIC,-,-,-,-,-,BAG-PE	1

8.Block diagram



9. Schematic diagrams

Schematic diagrams 9-1

9. Schematic diagrams